

DEC 21 1925

Medical Lib.

VOL. V

OLD SERIES VOL. LXXXII

No. 2

THE
AMERICAN
JOURNAL OF PSYCHIATRY
(FORMERLY THE AMERICAN JOURNAL OF INSANITY)

UNDER THE AUSPICES OF
THE AMERICAN PSYCHIATRIC ASSOCIATION

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BALTIMORE
THE JOHNS HOPKINS PRESS
OCTOBER, 1925

Published Quarterly

Subscription, \$5.00 a Volume

Entered as second-class matter July 31, 1911, at the postoffice at Baltimore, Maryland, under the Act of March 3, 1879.
Acceptance for mailing at special rate of postage provided for in Section 1103, Act of October 3, 1917.
Authorized on July 3, 1918.

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AMERICAN JOURNAL OF PSYCHIATRY

AN UNUSUAL MANIFESTATION OF METASTATIC MILIARY CARCINOMATOSIS OF THE CENTRAL NERVOUS SYSTEM.*

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The purpose of this paper is twofold, first to present the neuropathological study of a curious biologic injection of malignant epithelial cells into the central nervous system and secondly to again emphasize the difficulties in differentiating functional from certain organic mental disorders when encountered in early developmental stages, and when the lesions are diffuse in nature.

The patient under consideration was an American, aged 27, married, mechanic, who had been healthy until about six weeks before death. There was nothing in the family or in the personal history previous to the present illness showing any relations to his disease. The onset of his disorder was quite spectacular, appearing suddenly at night, awakening his wife by "delirious" talk and holding his abdomen of which he complained bitterly. His wife, thinking he was dreaming, shook him, but he made no reply. He continued to walk about the rooms, pushing her away when approached, and repeatedly saying "What did you do that to me for?" About an hour later he came to himself, but was very nauseated and kept repeating "What has ever made me sick?" Early in the morning he went to sleep, and later when seen by a physician he behaved so queerly that alcoholic intoxication was suspected; however, he continued to sleep the rest of the day; he then sat up for about an hour at which time he was able to talk quite rationally. The following morning he went to work, but re-

* Read at the eighty-first annual meeting of The American Psychiatric Association, Richmond, Va., May 12, 13, 14, 15, 1925.

turned home in the afternoon completely tired out, sleeping the rest of the day and all of the following day.

He continued to work for a time, returning home each evening tired and sleepy. His occupation was repairing jewelry and it was at this time (one month before coming to hospital) that his employer first became aware of his abnormal behavior. He would sit at a desk talking to himself coherently but "foolish" or would put on his hat and coat, go out without any apparent cause, return shortly, hang up his garments, repeat the performance in a short time, continuing in this manner throughout the day. The employer often left jewelry to be polished by the patient, and upon his return the following morning would perhaps find the articles broken, the patient giving inadequate excuses. At times he would show considerable irritable temper and slam things about. Since this state of affairs was progressing his discharge from employment was contemplated.

His sexual libido greatly increased, and in addition to frequent heterosexual demands he suffered from priapism and masturbated freely. About ten days before admission to the hospital he began to hesitate a great deal in speech, being unable to pronounce the words properly; he was also frequently embarrassed because he could not recall the proper words. He realized that he was gradually losing the power of speech but frequently remarked, "I am so tired, I wish I could remain in bed." Following some sort of fainting spell he was sent to a general hospital where he remained for 24 hours. Here he became very stubborn, violent and unmanageable, and was then brought to St. Elizabeth's Hospital under the influence of a narcotic. He was admitted to this hospital September 1, 1922, in a state of relaxation, with closed eyes. When addressed he would raise the eyelids, look at the examiner, promptly lower them again and turn slowly toward the walls. When examined September 5 he frequently smiled, seemed cheerful and free from fear. He made an effort to reply to questions, but most replies were inarticulate; he also tried to write the answers to questions but this writing was an illegible scrawl, however, he seemed to understand what was said.

Physically the patient was a well-nourished, well-developed man showing no gross abnormalities in constitution. Blood pressure 130-84. Because of the mental condition of the patient only a

partial neurological examination was possible but there was a very marked Babinski reflex on the left side, a suggestion of one on the right side, marked ankle clonus on the right, and slight ankle clonus on the left side. The pupils were somewhat sluggish to light, but otherwise normal, also a thorough ophthalmologic examination was entirely negative. His speech was unintelligible. Blood Wassermann reaction and blood chemistry negative. Spinal fluid Wassermann negative—colloidal gold, normal curve, cells 4, protein content normal. The left side of the body was very tense, and the left forearm was held in a position of flexion upon the arm, while the left leg and thigh were rigidly extended.

Twenty-one days after admission he suddenly developed an extreme dyspnoea without cyanosis. The teeth were closed and the lips flapped from forced exhalation. These respirations were very irregular—ranging from 10 to 20 per minute, but at no time approaching the Cheyne-Stokes type of rhythm. In twenty-four hours the attack had passed and the patient rested quietly. Seven days later he had a second attack ushered in by a rapid respiratory excitement and lasting thirty-five minutes. The respiratory rate was 40-45 per minute and the excursions were of such depth, force and violence that death seemed inevitable. During this time the forearms were tensely flexed on the arms and adducted so that the hands lay over the nipple area, the third, fourth, and fifth fingers of each hand were flexed at the metacarpal phalangeal joints, and at the junction of the proximal and middle phalanges, the distal phalanx being in extension. The thumb and index finger were fixed in over-extension. The right leg was slowly alternately flexed and extended, a strong Babinski and a marked ankle clonus were present on the right side, but only slight on the left. Pain sense on the left side of the body was diminished, but the right side was hyperesthetic. The mandible was powerfully clinched against the upper teeth, the eye globes were drawn to the left and oscillated slowly and the pupils were dilated. The respiratory effort then relaxed, and within 15 or 20 minutes the respirations had dropped to eight per minute and were rather shallow. The respirations were brought up to 14 per minute with atropin, and the patient passed into a deep coma from which he never fully regained consciousness. He lived for six days during the last 48 hours of which the pulse was racing.

During his illness he was seen by many specialists in nervous and mental diseases. In the early stages before neurological signs became pronounced he was considered, because of his peculiar behavior, to be a case of catatonic dementia precox. After definite but diffuse neurologic signs made their appearance, the diagnosis of epidemic encephalitis of which there were several supportive facts through the history was made by several neurologists.

Necropsy Findings.—The body was that of a young adult male with a large type of skeleton and showing typical masculine pilosity over the chest, axillæ and genital region. Rigor mortis was intense, particularly over the left side of the body, and the left arm was so rigidly flexed that it was not extendible even on strong prolonged traction. The pupils were equal and dilated. The heart was surrounded by 100 c. c.'s of pericardial fluid and the surfaces of the epicardium showed patches of mechanical irritation. The muscle was soft and flabby, exhibiting features of decompensation. The lungs were free from adhesions, but sections disclosed a confluent broncho-pneumonia. There no other general autopsy findings of interest with the exception of a small encysted hydrocele in the tunica vaginalis, which upon palpation before sectioning was thought to be a third testicle.

Here I should like to emphasize that no evidence of gross tumors was found in any organ of the body.

Brain Examination Before Fixation.—The brain weighed 1600 grams, and the surface was markedly congested (Fig. 1), this congestion being universal and affecting the smallest capillaries, a few of which in the frontal regions had ruptured, thus producing small localized subpial hemorrhages. The brain structure was very boggy and edematous, and although the convolutions were well developed in both hemispheres, there was a suggestion of slight general atrophy of the gyri of the frontal lobes. The walls of the midbrain were only slightly swollen, but the cerebral peduncles, pons and medulla were softened and swollen. On the right side of the medulla the olivary protuberance was entirely obliterated and the surface markings of the bulb were indistinguishable. The choroid plexus was markedly congested, and the floor of the fourth ventricle was slightly swollen, as were also the tissues surrounding the Sylvian aqueduct. The cervical cord was softened and so edematous that the gray substance was not well

Jemarcated. The remainder of the cord was not removed. There was no evidence of gross lesions in the meninges, ventricles or cut surfaces of the brain substance.

After Fixation.—The usual routine microscopic sections of the cortex disclosed a miliary carcinomatosis, and it was not until these had initiated a closer inspection of the brain with the hand glass, that minute grayish red areas were visible. These areas, rarely larger than a small pin head to the naked eye were only slightly darker than the brain substance and were scattered everywhere in great numbers through the cortex, centrum semiovale, and basal ganglia of both hemispheres. The midbrain structures, cerebellum, pons and medulla were also affected, but the cervical spinal cord, meninges and choroid plexus were free from visible lesions. No macroscopic or microscopic tumor was discovered in any other organ or tissue of the body to account for the original source of these metastases, which to say the least is remarkable, since the lesions were so numerous.

SUMMARY OF THE HISTOPATHOLOGIC EXAMINATION.

The slides were prepared for study according to the H. & E., Polychrome, Victoria Blue, Methyl Violet, Iron Hematoxylin, Mallory Connective Tissue, Bielschosky, Modification of Campbell's Stain, Modification of Benda's Stain and Held Modification of Weigert Stains.

I. *Meninges.*—The dura mater was entirely free from cancer invasions and other pathologic reactions.

The carcinoma cells were not numerous in the pia-arachnoid as a whole, but collections of these cells were noted in the meningeal meshes of the depths of the cortical fissures where there was a considerable response on the part of the interstitial tissues and blood vessel walls. In places the meshes of the pia-arachnoid covering the apices of the convolutions were closely packed and dilated with cancer cells. Here the infiltration did not surround the meningeal vessels but tended toward a more diffuse or scattered distribution of small foci and of isolated cells. The picture as a whole indicated that the meninges had been affected secondarily by extensions from the brain substance. In fact in some areas of the cortex there were to be seen direct extensions of cells from the brain to the meninges (Fig. 2).

II. *Sections of Cerebral Cortex.*—The patches of foreign cell infiltration were rarely larger than a low power microscopic field and in general were characterized by a perivascular single layer of large columnar, cuboidal and irregular types of epithelial cells; even the smallest pericapillary space contained from one to five of these cells. One side of each cell was very closely approximated to the outer wall of the vessel, regardless of the extent of the dilatation of the perivascular spaces (Fig. 3). There was considerable tendency toward fusing of the protoplasm in these cells so that in many foci they appeared to be accumulative giant cells.

(a) Sections of the frontal cortex showed a marked patchy destruction of the cerebral organization, where in areas of focal perivascular infiltration of malignant appearing cells, some had broken through the limits of the spaces and had scatteringly infiltrated the surrounding substance, there arousing a mild neuroglial reaction (Fig. 4). Some of the larger vessels and nearly all of the smaller ones showed alterations in the lumina; many were obliterated or collapsed by pressure, others were filled by young fibroblasts, and some showed attempts to reconstruct by recanaliculation. The walls of the capillaries were thickened, and there were numerous perivascular hemorrhages. The neuron cells in these vicinities were very badly damaged showing alterations in chromatin substance, and secondary degenerations, and the neuroglia cells were universally increased. The meninges covering the apices of the convolutions were free from cancer cell infiltrations, but in the depths of the fissures the pia arachnoid was secondarily invaded. These foci of cancer were not limited to the cortex, but a few small patches were noted deeper in the white substance.

(b) Sections from the cortex of the temporal lobes exhibited many small groups of cancer cells near the surfaces of the convolutions, where the neuroglial proliferation was unusually dense (Fig. 5), and there had been some splitting of the blood vessel walls. The pia arachnoid attached to these sections was filled with fibroblasts, was much thickened, and showed a tendency to patchy marginal endothelial proliferation. An occasional small round group of carcinoma cells was noted in the meshes of these meninges.

(c) Sections of the motor cortex closely resembled the foregoing described cortical areas in all respects save one; the me-

ningeal picture. Here the meshes of the pia arachnoid were quite heavily invaded and single rows of cancer cells were noted extending along the surface of the cortex. In foci where the cells were independent of a perivascular space, that is in the brain substance outside the perivascular spaces, there was a great tendency to coalescence of protoplasm, the cells being large with nuclei showing bizarre shapes and being unequal in staining properties. In addition to the cancer in the meninges there was a marked accumulation of plasma cells, lymphocytes and fibroblasts. Neuroglia stains brought into relief a marked neuroglial reaction through the cortex, with a considerable degree of felting through the areas of carcinomatous invasion. In some cortical areas where the perivascular cancer cells were very numerous the Held Modification of the Weigert crystal violet stain brought into relief a dense felting of several orders of neuroglial cells. This was particularly prominent in the tissue structure between the neoplastic groups, and where groups of cells were near the surface of the convolutions, the marginal gliosis was very dense. In places there were dense patches of neurogliosis quite out of keeping with what should be expected, *i. e.*, in patches very few foreign cells had produced tremendous neuroglial reactions while in other areas numerous foreign cells in large groups had produced very little of this reaction. Of all the sections examined, only one showed an aggregation of cancer cells of sufficient size and density (3 mm. wide) in ring formation to produce a complete necrosis of the enclosed tissue. There was also much edema and a few punctate hemorrhages through the motor zones of both hemispheres. So numerous were the cancer foci that sections taken at random throughout the entire cerebral cortex showed the characteristic process.

(d) Section of Hippocampus: Within the cortical folds of the hippocampus was seen several very small focal areas of cancer invasions, which had displaced considerable tissue, although the cancer cells usually adhered very closely to the outer wall of the blood vessels, thus producing ring formations. In the centers of some of these ring-like forms of cuboidal epithelial cells there were dense fibroblastic blood vessel obliterations. In the center of some other rings were several thin walled newly formed blood vessels, and numerous capillary hemorrhages were observed. The surrounding cortical substances was edematous in appearance,

and many neuron cells were in process of disintegration; undergoing active phagocytosis and containing neuronophages.

(e) Gyri Cinguli: Larger sized areas of cortex (covering three low power microscopic fields) were completely disorganized and filled with clumps of cancer cells and neuroglial proliferations. A few straggling groups of cancer cells were noted along the overlying meninges where they were arranged in strips, strings, or rows against the inner surface of the pia-arachnoid.

III. Basal Ganglia.—

(a) Corpus Striatum: Small perivascular cancer infiltrations were noted throughout this structure; the cancer cells here having more of a cuboidal appearance. In patches the fibers of the internal capsule were separated by the invasions and those fibers nearest the lesions appeared degenerated and devitalized. Most of the neuron cells appeared normal, but a few showed secondary degenerations and chromatin alterations.

(b) Thalamus: Small patches of perivascular cancer infiltration were seen deep in the thalamic centers; these small foci varied in degree from a few irregular cells to complete surrounding of vessels by columnar cells. Many areas of tissue rarefaction were noted, but the ependyma was intact and nowhere approached by the cancer cells, although there was some patchy neuroglial increase in the subependymal structures. Numerous perivascular hemorrhages had occurred. In certain areas of the thalamus there was a severe destruction of the parenchyma far out of proportion to the cancer invasion, which was represented by small foci composed of small but heavily stained cells.

No cancer cells were seen in sections of the pars optici hypothalami nor in the optic nerve substance, but some scattered ones were noted along the optic nerve sheaths where there was also marked congestion.

IV. Choroid Plexus.—These sections showed numerous spheroid concretions (Fig. 6) which were surrounded by adenomatous appearing cell groups. In a very few areas were carcinomatous appearing cells visible, and these were seen tightly adherent to the villi, at first impressing one as being derived or budding from the associated villus. This picture first suggested a possible origin of the malignant cells, which was not borne out by later studies. The structure of the choroid plexuses was well preserved with the

exception of a few rather large patches of dense fibrosis surrounded by epithelial concretions (Fig. 6).

V. *Hind Brain Segments*.—The cells of the pons nuclei were somewhat altered, showing a tendency to shrinkage and eccentric displacement of the nucleus. There were very few areas of carcinomatous invasion encountered and in these the cells were in small stringy narrow groups, the individual cells being so flattened against the outer walls of the capillaries that they were identified with difficulty. Some of the small perivascular spaces contained only three or four foreign cells, but when situated in the center of a pons nucleus, the neuron cells showed vacuolization and granular changes. Distributed freely through the white bundles were numerous small areas of carcinomatous invasion, the cells of which were few in number and were situated about the smaller capillaries, with none about the larger vessels. In one area a few vessels were surrounded by elongated carcinomatous cells which had apparently accommodated to a very narrow space by flattening against the vessel wall. A few wandering cancer cells infiltrated the intervascular tissue. Many sections of the pons structures revealed no carcinomatous infiltration, but there was marked general edema, much congestion, numerous small areas of fluid accumulation independent of the perivascular spaces, and an occasional small hemorrhage from ruptured capillaries usually near the meningeal surface.

A cross section through the fifth nerve nucleus area revealed a patch of infiltration adjacent to the left fifth nucleus, the cells of which showed primary and secondary reactions such as acute cloudy changes and swelling of the axon hills; many cells were affected to the extent that no differentiation of the protoplasmic structures could be made out. This was the only cancer focus noted in the entire medulla.

VI. *Cerebellum*.—Sections were taken of several areas, some of which revealed considerable damage. Many of the cerebellar leaflets were in advanced stages of degeneration, the normal structure being largely replaced by neuroglial proliferation and epithelial cell infiltration (Fig. 7). Cancer foci were encountered in each one of numerous sections of the cerebellum.

In some leaflets there was great atrophy with practically total destruction of all structural layers, which were replaced by neuroglial cells, the molecular zone being sclerotic, the Purkinje's

layer devastated and the granular layers broken up with the cells scattered (Fig. 8). Two or three of these leaflets thus affected could be seen adjoining or existing independently with intermediate leaflets entirely free from invasion and bearing normal appearing Purkinje's cells. The carcinoma cells were very actively proliferating but in much smaller collections than those encountered in the cerebral structures; however, there was a greater reaction on the part of the surrounding tissues, there being marked edema of structures and an active neuroglial production. The collective white tracts were rarely invaded, although about some of the blood vessels a few cancer cells were seen and secondary degeneration was prominent throughout. The Purkinje's cells at the margins of the invaded areas showed albuminous degeneration, and in some places it appeared that the carcinoma cells had actually entered the protoplasm of an occasional Purkinje's cell, but this was not satisfactorily substantiated.

A few small groups of cancer cells were located in the dentate nuclei interfering with the ganglion cell layers producing both displacement and numerical reductions. These cancer groups were composed of very small cells and were surrounded by neuroglial proliferations and fibroblastic reactions (Fig. 9). The neuron cells of the dentate nuclei including those remote to the cancer foci were in stages of typical cloudy swelling. The meninges of the cerebellum were comparatively free from secondary invasions.

VII. The following structures were found to be free from cancer invasion but exhibited what might be interpreted as mild toxic reactions: Corpus callosum, cerebral peduncles, corpora quadrigemina, mammillary bodies, hypophysis, and the cervical spinal cord.

DISCUSSION AND COMMENTS.

1. In view of the type of behavior noted in this patient before the onset of the acute disorder he was diagnosed as dementia precox catatonic type by experienced psychiatrists.

2. After diffuse neurologic signs were developed the diagnosis of epidemic encephalitis with cortical manifestations and meningeal irritation was agreed upon. Much might be said in justification of the mistaken diagnosis, since perhaps in all neurology with the possible exception of syphilis, encephalitis is the greatest simulator of other disorders.

Respiratory difficulties similar to those manifested by the patient are common in encephalitis, and even the acute abdominal symptoms fit into this picture since Bolaffi¹ in addition to others has reported three cases of epidemic encephalitis beginning with symptoms suggesting a surgical abdominal affection. In some cases an operation was performed on the diagnosis of appendicitis or ileus, but nothing was found to explain the symptoms. In one case the abdominal pain with localized tenderness continued for nine days. In all cases the clinical picture of epidemic encephalitis later developed.

Buzzard² describes cases exhibiting groups of symptoms giving rise to considerable difficulty in diagnosis, particularly when the force of the inflammation is spent upon the cerebral cortex, which necessitates differentiation from cerebral tumor, abscess and certain types of cerebral hemorrhages. Among the great number of published accounts of difficulties of diagnosis in this connection we may direct attention to a few of the most interesting; Clark³ reported a case of sarcoma of the brain with secondary actinomyces simulating epidemic encephalitis, Sands⁴ three cases of epidemic encephalitis simulating brain tumor—all having both diffuse and localizing symptoms including hemiplegia and choked disk, and Sakorrafos⁵ observed the complete clinical picture of epidemic encephalitis with somnolence, ptosis and diplopia with occasional fever in a man aged 57 who died within a month from sarcoma of the midbrain.

McKendree⁶ in 1921 presented a case before the New York Neurological Society for consideration in which much discussion failed to decide the diagnosis in favor of either epidemic encephalitis or cerebral syphilis; Guillain and Alajouanine⁷ described syphilis simulating epidemic encephalitis; Strauss and Globus⁸ reported four cases, one each of syphilis of the central nervous system, tuberculosis meningitis, tumors of the brain and Landry's paralysis, all emphasizing diagnostic difficulties in differentiation from acute epidemic encephalitis; Echeperé⁹ described the case of a young prostitute who developed a reaction with confusion, sluggish pupillary reflexes, and motor disturbances suggestive of general paresis, but later turning out to be epidemic encephalitis; and Guillian¹⁰ has emphasized the fact that epidemic encephalitis

may be simulated by secondary syphilitic meningeal reactions in primary midbrain affections.

Leon-Kindberg and Lermoyez,¹¹ among a few others, have reported the difficulties in differentiating tuberculous meningitis from epidemic encephalitis; Grossman¹² three cases of epidemic encephalitis presenting the clinical syndrome of myasthenia gravis; Moewes¹³ a case simulating diabetic coma; Wilson¹⁴ two cases of drug poisoning (one of luminal—one of "bootleg" whiskey) simulating encephalitis; also mentioning a case reported by Hassin and Wein, in which veronal poisoning acted in a similar manner; and Troband¹⁵ discussed encephalitis and multiple sclerosis from the standpoint of similarity of symptoms.

It is to be expected that epidemic encephalitis like many other organic brain diseases will occasionally induce a mental reaction which is typical of some of the so-called functional disorders; that is, will serve to bring out a fundamental total personality response. It is perhaps better expressed in this manner than in terms suggesting that encephalitis has simulated some mental disorder; *e. g.*, dementia precox. Among those who have written on these combinations are Bourges and Marcandier,¹⁶ Sicard and Ballock,¹⁷ and Widal.¹⁸

3. Since the extraneural origin of this tumor was obscure it was first thought to be the special type arising from the blood vessels as first shown by Eberth¹⁹ who was able to isolate a thin membrane composed of polygonal and multipolar cells surrounding the meningeal vessels. These cells being distinct from adventitial cells and forming an outer boundary between the vessel wall and the perivascular lymphatics might give rise to tumors whose cells would radiate out from the vessel walls. However, Ribbert thinks that no tumor has been clearly traced to these cells.

Dr. James Ewing examined some of the cortical sections before a detailed study of the several structures had been made, and concluded that the presence of these particular perivascular cells could not be explained in any other way except a secondary invasion, and it was his impression that the case must be one of so-called cancerous meningitis due to dissemination over the meninges of a secondary carcinoma. He believed that there must have been a small primary malignant growth tucked away in some organ where it was overlooked.

Kaufman²⁰ pointed out that when the metastasis takes place through the blood stream, the brain structures are principally affected, but when it occurs through the "lymphatics" the meningeal tissues are primarily involved. Morse²¹ has summarized the metastatic situation about as follows: Invasion of the central nervous system is comparatively rare, when the frequency of carcinoma in general is considered, and of all cancers those of the breast and of the lungs are the most liable to enter the brain; however, this may occur without the previous development of foci as such in the lung, since a fixation of tumor cells in the lung tissue may give rise to a carcinomatous endophlebitis by which the cells may reach the left heart by passing through the wide capillaries of the lung into the pulmonary veins, thus reaching the brain as emboli.

The path of invasion leading eventually to secondary meningeal carcinomatosis is along the perineural spaces which are continuous with the subarachnoid meshes. "Under this heading would come invasion by way of the cervical glands and cranial nerves. There is an indirect connection between the cranial nerves and the cervical glands which serves as an accessory channel of drainage for the cerebrospinal fluid."

Concerning metastases from the lungs Levin²² has remarked that "it is presumably easy for carcinoma emboli from the lungs to reach the brain. The weak point in this hypothesis consists in the fact that metastases in the lungs are found in over 25 per cent of cases of carcinoma, while metastases in the brain as stated above are found in only 4.77 per cent of cases. In other words, only a small number of cases of carcinoma which develop metastasis in the lungs also metastasize in the brain."

This author also mentions the important point that metastases in the cord are notably less frequent than in the brain. He was able to find only seven cases in the literature, one of which, Taniguchi's case,²³ was described in detail. Since the cancer infiltration was so extensively diffused in the case at present under discussion it is to be regretted that the entire cord was not obtained for examination as this might have revealed a local irritative cause for the period of priapism mentioned in the history, a reason similar in location to that offered by Castez and Magnone²⁴ to explain a case of priapism of six weeks duration and which resolved under antisiphilitic treatment.

Hassin and Singer²² in their study of carcinoma of the brain observed that the parenchyma of the invaded portions appeared to be replaced by masses of carcinoma cells grouped around the blood vessels or might remain as islands surrounded by strands of cancer tissue. In my case the infiltration was practically limited to the perivascular spaces and had apparently affected the brain structure in general to a limited extent; however, in an occasional limited area, particularly in the cerebellum changes from pressure, irritation and toxemia were pronounced. I was unable to find in this case an invasion of the neuron cells by cancer cells as described by Hassin, although in a few instances cancer cells were found in the pericellular area and occasionally tightly adherent to the margin of the ganglion cell. Polymorphonuclear leucocytes, plasma cells, lymphocytes, gitter cells, etc., were particularly scarce in nearly all areas examined.

In this case of cerebral invasion as in that reported by Morse the areas remote from the cancer foci could not be interpreted as toxic encephalitis, a term used by Hassin to designate the advanced degeneration of the nerve cells, invasion of ganglion cells by cancer cells, glial proliferation and new formations of capillaries, although in the infiltrated regions themselves several of these changes were in early stages of development.

After a careful consideration of the type of epithelial cells with columnar and cuboidal shapes of various sizes, usually having clear protoplasm, with nuclei in the centers or bases of the structure and frequently lobed abundant nuclear granules reacting sharply to basic stains, and with some tendency to multinucleate or to collect into giant cells (Fig. 10) composing these infiltrations it was the general consensus of opinion of several pathologists including the author, that their origin was probably a primary neoplasm of the lung, which if true must necessarily have been quite small or of such a nature as to escape the usual necropsy examination including the customary gross sections of these organs.

The acute onset of symptoms, the mental reaction, the diffuse neurologic signs, the difficulties in diagnosis, the rapid progress and early termination, the widespread cancer injection of the cerebral structures with peculiar arrangement of the cells and the failure



FIG. 1.—Photograph of congested brain the substance of which was filled with microscopic carcinomata.

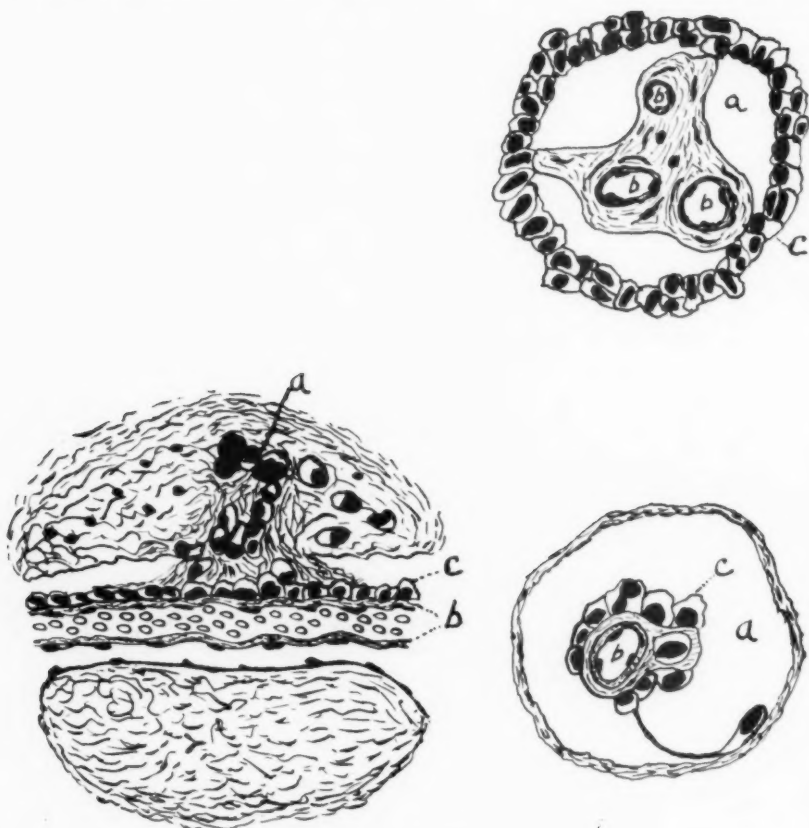


FIG. 2.—Schematic representation of meningeal infiltration of carcinoma cells from brain substance.
a, Blood vessel area. b, Pia-arachnoid. c, Layer of carcinoma cells.

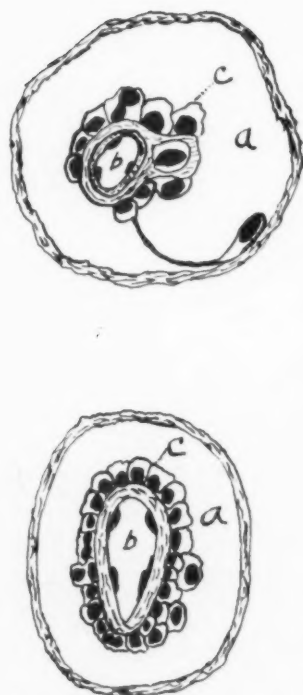


FIG. 3.—Schematic representation of the cancer cell arrangements about the blood-vessels.
a, Perivascular spaces. b, Blood-vessels. c, Cancer cells.

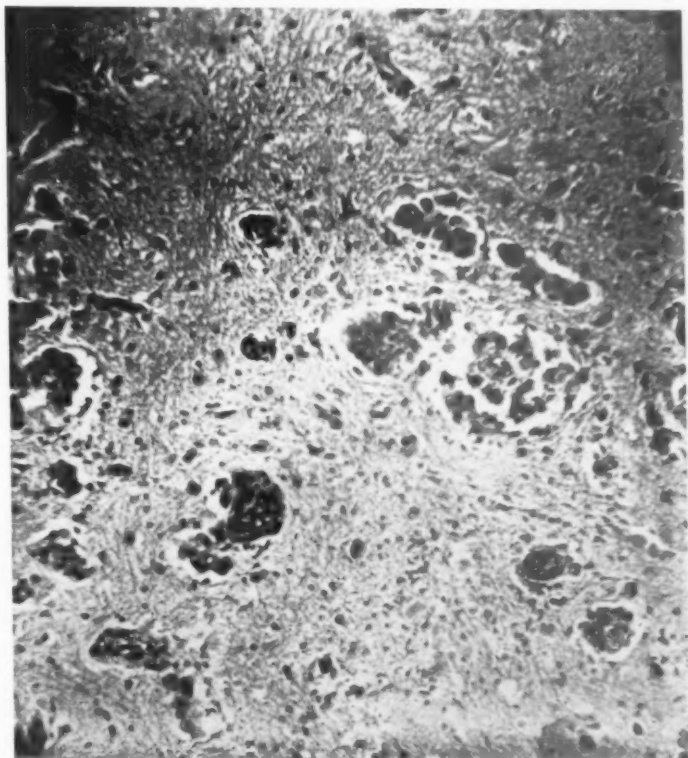


FIG. 4.—Photomicrograph of frontal cortex showing local and diffuse cancer cell infiltrations.

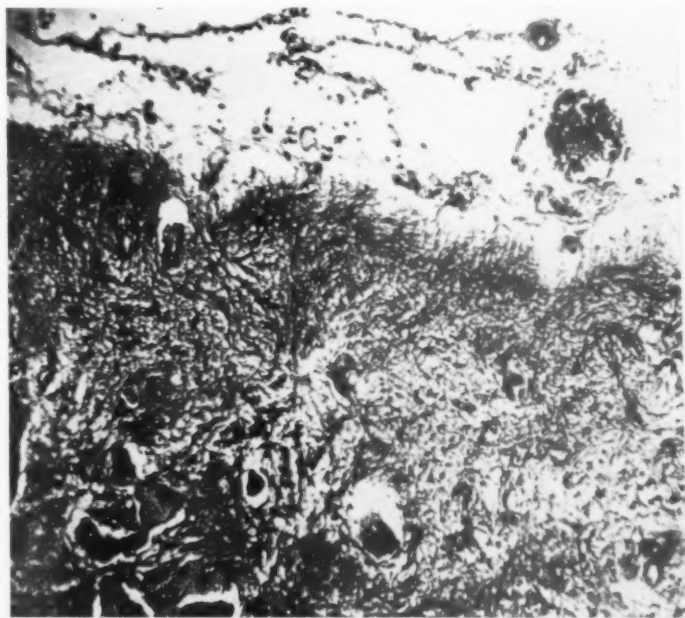


FIG. 5.—Photomicrograph of a section of temporal cortex (marginal zone) showing dense neuroglial reactions in the vicinity of the cancer invasions. (Phosphotungstic acid Hematoxylin.)

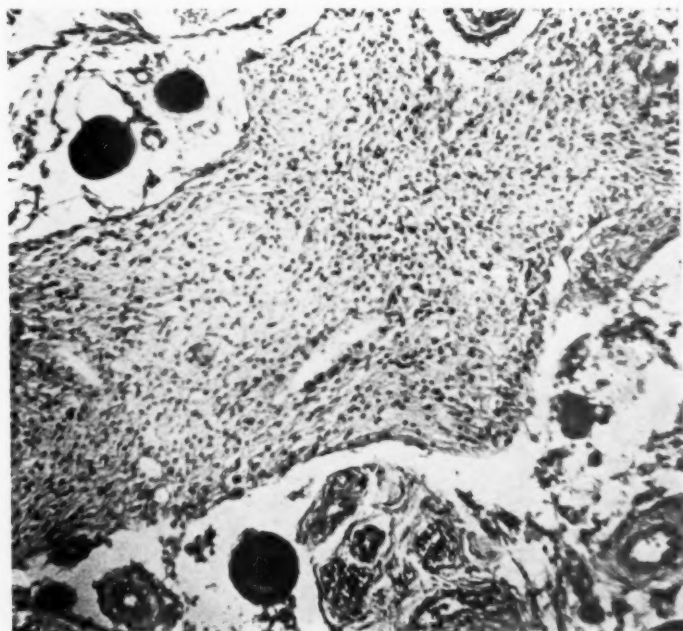


FIG. 6.—Photomicrograph of a section of choroid plexus showing dense patchy fibrosis and surrounding concentric concretions.

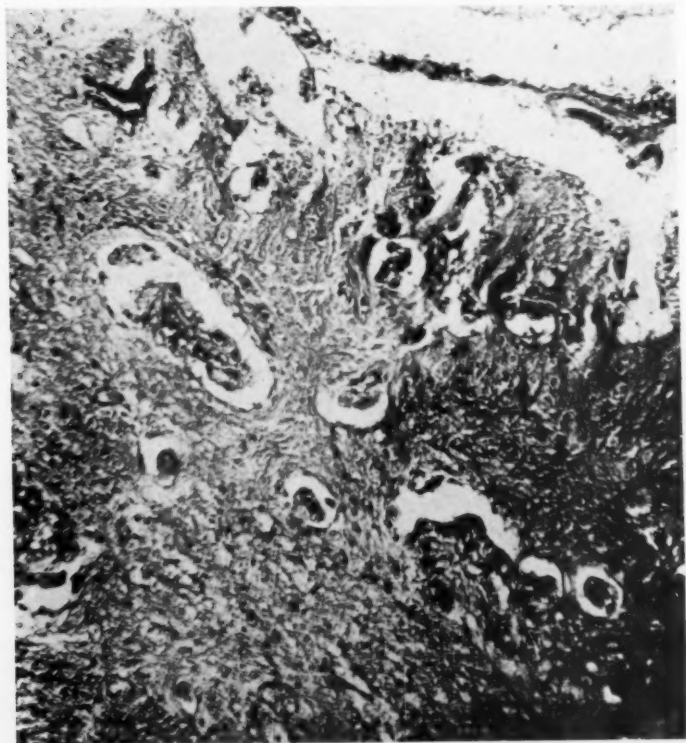


FIG. 7.—Photomicrograph of the margin of a cerebellar leaflet showing dense gliosis and fibrosis with obliteration of architectural landmarks—a marked tissue reaction to a slight amount of cancer invasion.



FIG. 8.—Photomicrograph of tip of a cerebellar leaflet exhibiting dense sclerosis of molecular and granular layers, marked degeneration in the few remaining Purkinje's cells, neuroglial proliferations throughout and a few cancer cell infiltrations. (Phosphotungstic acid Hematoxylin.)

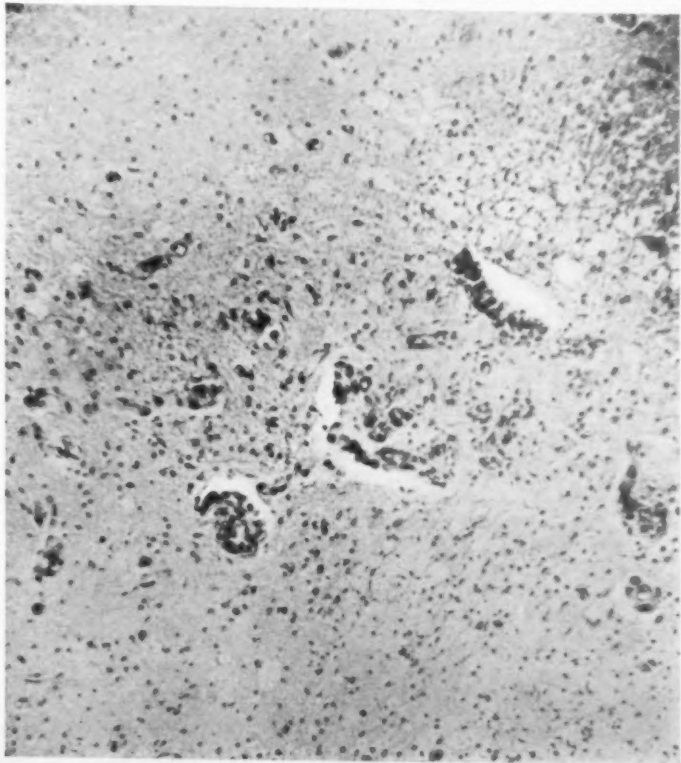


FIG. 9.—Photomicrograph of section through dentate nucleus showing small cancer cell groups and surrounding neuroglial reactions.

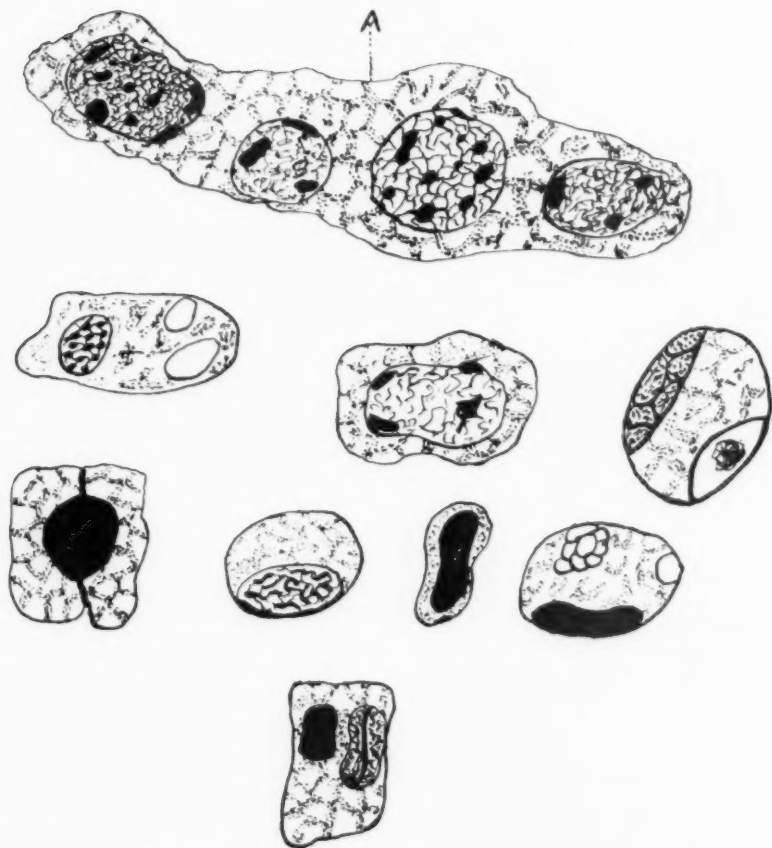


FIG. 10.—Schematic representation of the various types of cancer cells found in the infiltration. A, Giant cell formation.

to discover either primary carcinomas or metastases in the other organs of the body are some of the features justifying a report of this unique problem.

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DISCUSSION.

DR. FARR.—Cases of unsuspected metastatic carcinoma of the central nervous system are probably more frequent than is generally thought; hence the importance of thorough routine examinations. Last year Dr. A. E. Taft (in our laboratory at the Pennsylvania Hospital) found a single microscopical cancer nest, similar to some of those shown by Dr. Lewis in a case which showed absolutely nothing macroscopically.

DR. GIBBS.—How long had there been change in behaviour in him before the acute episode of going to the hospital?

DR. LEWIS (In closing).—As far as I have information the so-called acute symptoms were going on only about two weeks or 10 days, and the wife had not noticed anything before that. On questioning the employers it was found there had been a change for two or three weeks before the patient left the job. Altogether I think probably two months would cover the whole situation as far as anyone knows.



THE SUPRARENAL CORTEX AND BLOOD CHOLESTEROL IN DEMENTIA PRÆCOX.*

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It is the first object of this paper to call attention to certain facts involving the embryology and pathology of the suprarenal gland and to certain recent findings in biological chemistry and metabolism which, when considered in relation to each other, suggest a probable significance of fat or lipoid metabolism in dementia præcox. The second object is to report observations on the cholesterol content of the blood in such patients.

Sex Development in Dementia Præcox.—A possible significance of the suprarenal cortex in dementia præcox has been suggested by observations on the secondary sex characters and the previous sexual behavior of these patients.^{1,2,3} It was shown that in female patients a growth of hair on the breasts and pubic hair of masculine type occurred with abnormal frequency and abundance. At the same time it was found that the previous sexual behavior of many female patients indicated a rather strong sexual desire, either heterosexual or homosexual, or both. In a carefully studied series there was a history of illicit heterosexual relations in one-third of those over 19 years of age on admission. It was also shown that these two factors had a definite relation to age of onset of the psychosis, and that when considered in relation to age they had some diagnostic and prognostic importance. It was suggested that this psychopathic and somewhat perverse sexual drive in young females might be due to the presence of some factor of a masculine nature, of which the masculine hair was a surface

* Read in abstract at the eighty-first annual meeting of the American Psychiatric Association, Richmond, Va., May 12, 13, 14, 15, 1925.

† With the helpful cooperation of the staffs of the Psychiatric Institute and Manhattan State Hospital, Wards Island. Dr. Bloor, University of Rochester, has made valuable suggestions.

manifestation. In male patients, on the other hand, masculine hair was frequently absent or deficient, and retarded in growth, especially in those who had been admitted before 26 years of age. The previous behavior of male patients indicated a rather feeble or transitory sexual drive. No heterosexual relations had occurred in over half of them, and only a small percentage had been able to establish and carry on relations for even a short time. The males, therefore, seemed to lack something of which the females had too much.

Relation of Suprarenal to Sex Development.—That the presence of a masculine element in females, and possibly also a deficiency of maleness in males, may involve the suprarenal cortex is indicated by the evidence that this gland has some close relation to sexual development. It has been repeatedly observed that an excessive growth of hair and the appearance of other male sex characters occur in young females with tumors of the suprarenal.^{4, 5, 6, 7, 8, 28} In children these hypernephromata are much more frequent in females than males. Hyperplasia of the cortex and of accessory suprarenals is found frequently in female pseudohermaphrodites,⁴ illustrating the tendency of neoplasia and hyperplasia of the gland to be associated with the appearance of male characters in the female. In boys, on the other hand, these tumors accentuate the male characters, with a precocious male puberty and no feminine characters.

Some basis for such coexistent suprarenal and sex pathology is to be found in the close embryologic relation between the suprarenal cortex and the testis and ovary.⁹ Cortex and gonad are embryologic twins. As early as the fourth week the cells which are to form the cortex and those which are to form the gonad have developed side by side from the same anlage, the genital ridge of the Wolffian body. For a time these two groups of cells lie close together, with no very distinct boundary between them. One group is rapidly forming the suprarenal gland of the foetus, while in the other group genital cells appear, followed by differentiation into testis and ovary. At the beginning of this differentiation, and while still in contact with the cortex tissue, the future ovary goes through a complex hermaphroditic stage which is of particular significance in these disturbances of sexual differentiation.²⁹ Discussion of this would involve the whole question of the biologic

aspect of homosexuality, which must be considered at another time.

In addition to their common origin, there is a marked structural resemblance between the cells of suprarenal cortex and the interstitial cells of the testis, and also the cells of the corpus luteum. That they also have a functional relation will be considered presently.

Embryologic Relation of Suprarenal to Brain.—The embryology of the suprarenal is of interest from another point of view, that of a relation to the brain. In the human embryo the suprarenal cortex grows rapidly to a relatively enormous size, which reaches a maximum during the third month (Jackson²¹), when it is as large as the kidney. It remains relatively large until birth. After birth this tissue is rapidly absorbed,^{22, 24} leaving only a thin rim of cortical cells and the chromaffin cells. From these the suprarenal of the adult is slowly built up. This early development in the human embryo of a large suprarenal, composed of cells of glandular type having a rich blood supply, indicates an important foetal function. Since this large gland is found only in the human foetus at birth and shows some evidence of a lipoid function, it has been considered to have some relation to the development of the large human brain. This view is sustained by the fact that when the cerebral hemispheres are absent at birth this large suprarenal cortex is also absent.²³ In cases of anencephaly the suprarenal is very small,²⁴ and its make-up suggests too early absorption and too rapid evolution. This pathologic condition seems to date from the fifth or sixth month (Landau²⁵). It is this foetal gland, apparently involved in brain development, which grew so rapidly from a common origin with the sex tissue. Disturbances of brain development, however, are not conspicuous in dementia præcox. In children with suprarenal tumors and abnormalities of sexual development no extensive psychiatric observations seem to have been made, but many of those reported have shown psychopathic traits and mental retardation.²⁶

Evidence of Functional Relation of Suprarenal to Brain and to Gonads.—In view of the evidence in pathology and embryology that the suprarenal cortex has some relation to sexual development which is of significance in explaining those disturbances of sexual development found in dementia præcox, it has seemed worth while

to approach the question of a relation between suprarenal and sex from the standpoint of function or physiology. If sufficient evidence should be found that the testis and ovary have some dependent relation to the suprarenal, and the physiologic nature of this relation were sufficiently clear, then the physiologic function involved might be profitably studied in dementia præcox. If at the same time it should be found that the function of the suprarenal may involve the brain, then such observations would also offer a means of considering the brain in dementia præcox from the standpoint of function.

Some evidence that the suprarenal cortex has a physiological relation to the brain on the one hand, and to the testis and ovary on the other, is found in the significant part played by substances of a lipid nature in the functional metabolism of these organs. An adequate lipid metabolism seems to be particularly essential to the functional activity of the brain and testis and ovary, and in this metabolism the suprarenal cortex has an important part. In addition to the inactive neutral fat stored in adipose tissue, lipid substances are widely distributed in the other tissues as active constituents of the cells, forming a part of the living tissue and taking an active part in the life processes.²⁷ The most widespread and important are cholesterol and the phosphorus compounds of fatty acids or phospholipins. In certain tissues, however, lipid substances are present in such amounts and in such form as to indicate their significance in the function of the tissue as well as in the life of the cell. This is particularly true of the brain, suprarenal cortex, testis and ovary.

Exclusive of water, the brain is about one-half lipoids in composition^{28, 29} of which over 50 per cent are phospholipins and 25 per cent cholesterol. There is now considerable evidence that the brain has a very active functional metabolism characterized by a high rate of oxidation.^{30, 31} Since phospholipins have an extreme susceptibility to oxidation,³¹ it seems evident that the brain lipoids have an active metabolic function. Of immediate interest here is the source of lipid supply, including the source from which the brain lipoids are built up, beginning as early as the third foetal month when one-fifth of the brain solids are already lipid. From this time until adult life there is a constant increase in amount and some increase in variety.

It is with regard to the supply of lipoids to the tissues, especially the brain and reproductive tissues, that the suprarenal cortex seems to have a functional relation to these organs. Two facts as to the function of the cortex are now established. First, that it is essential to life. Removal causes death in animals, unless accessory tissue is present. Second, that it has some essential part in lipid metabolism involving cholesterol.^{20, 22, 24} Exclusive of water, the adult cortex is about one-third lipid in composition.^{25, 26} Some of this is phospholipin, while a large part is cholesterol combined with fatty acids. These cholesterol esters fill the cortex with granules which are doubly refractile to polarized light. The circumstances under which the cholesterol content varies in physiological and pathological conditions leave no doubt as to its functional significance. A marked decrease occurs in acute infections and delirium tremens,²⁷ while marked increases occur in vascular and renal disease, and after feeding fat or cholesterol,^{28, 29} as well as in relation to reproduction. Removal of the suprarenal is followed by an increase in cholesterol in the blood.³⁰ Very significant as to function is the peculiar reaction of the suprarenal to starvation and to certain dietary deficiencies as in rickets, beri-beri, and scurvy. In starvation marked enlargement occurs in adult animals and man, with an increase in weight up to 100 per cent, "contrasting strongly with the atrophy typically found in most of the other viscera."³¹ Qualitative changes in the lipid content occur. The other organs most resistant to starvation are the brain and the heart.

A physiological relation between the large foetal cortex and the developing brain is suggested by the parallel increase in their lipid content during foetal life. It has been noted that the foetal suprarenal develops rapidly to a maximum relative size at the third month, and that the brain is already one-third lipid at this time. In the cells of the foetal suprarenal lipid granules appear very early and increase in size and amount,³² although no marked accumulation occurs as in the adult.³³ A definite increase in weight and cholesterol content occurs about the sixth month.³⁴ This corresponds to the increase in lipid content of the brain at this time.³⁵ These later months represent the second phase of brain development, that of cell differentiation and growth to functional efficiency,³¹ following the first period of cell proliferation. Thus the

suprarenal shows evidence of increased activity at the time the brain cells are maturing. And when the brain and the foetal cortex of the suprarenal are absent at birth the pathologic change seems to have occurred at the beginning of this period. The chemical significance of the rapid absorption of the foetal cortex after birth has not been determined, but two observations are significant. In the white rat it has been found that absorption occurs before birth and also that the chemical development of the brain is much more rapid than in man.

There is more conclusive evidence that the suprarenal cortex has a functional relation to sex and reproduction. Changes indicative of increased functional activity occur with reproduction. Enlargement and increase in lipoid content occurs during the breeding season in animals.²² Landau has observed a close relation between the evolution of the cortex and the reproductive period in man.²³ From the narrow rim of cells remaining after birth a new cortex is slowly regenerated during the first two years of life. Growth is then very slow during childhood, which is a period of comparative rest. Body growth apparently makes no great demands on the suprarenal. Landau observed a significant and marked development of the suprarenal just before puberty, with differentiation into layers and an increase in lipoid content. During puberty the cortex shows a very characteristic distribution of lipoid substance. The adult cortex reaches the height of its development between the fortieth and fiftieth year, followed by a gradual senile involution. During pregnancy the suprarenal enlarges, with definite hypertrophy of the glomerular layer and an increase in lipoids. This hypertrophy does not entirely disappear, so that in women who have borne children the suprarenal is larger than in men. This increased activity in pregnancy is accompanied by an increase in blood cholesterol. These changes are a part of the acceleration of lipoid metabolism at this time.²⁴ There is also some experimental evidence of the relation of the suprarenal to reproduction.^{25, 26}

Significance of Lipoid Substances in Sex Physiology.—The physiological significance of lipoid metabolism in sex and reproduction is indicated by the amount, distribution and functional variation of lipoid substances in the testis and ovary. It is well established that both testis and ovary have an internal secretion which is essential for the full development of the physical charac-

teristics of sex, and which gives life to the sex instinct. It is generally accepted that in man and male mammals this secretion is produced by the interstitial cells of the testis.³⁸ In the adult testis these cells are rich in lipoids which are of similar composition to those in the suprarenal cortex.⁴⁰ In male animals having a definite rutting season the interstitial cells show marked proliferation and enlargement, with increase in lipid content and signs of secretory activity.³⁷ The life history of the interstitial cells is parallel to that of the suprarenal. They appear early in the embryo, are relatively numerous until birth, almost disappear during childhood and again increase and become active with puberty. The seminiferous tubules of the testis are also rich in lipoids, especially the Sertoli cells,³⁹ which have a nutritive function, and the tails of the spermatozoa, which are 59 per cent phosphorized fat and cholesterol.⁴⁰

The internal secretion of the ovary has been generally thought to come from the corpus luteum, which is also very rich in lipoids. The evidence is clear that the corpus luteum is responsible for the changes which take place in the uterus and mammary glands in pregnancy. But there has been considerable uncertainty as to the source of the ovarian secretion which is essential for puberty and sexual function. Interstitial cells in the ovary occur regularly only in certain animals. In some of these, especially hibernating animals with one breeding season a year, the interstitial cells show the same season variation in secretory activity and lipid content as in the male.³⁷ In animals without interstitial cells, and in woman, where these cells are apparently inconsistent and few, the best evidence has indicated that the Graafian follicle is the source of the ovarian hormone.³⁸ The embryology of the ovary and the early formation of follicles also indicates that the female sex cell and the follicle are the source of the hormone for female differentiation and development.

The work of Allen and Doisy⁴¹ seems to be conclusive that the hormone essential for sexual development and function in the female is produced in the Graafian follicle. They observed that the fluid aspirated from unruptured follicles of hog ovaries would produce typical œstrus or "heat" in animals whose ovaries had been previously removed. They have now made extracts of follicle fluid, including that from cystic follicles in women, which seem to

meet the requirements of an ovarian hormone. Small doses of this extract injected into castrated female rats will produce œstrus in 48 hours with the typical vaginal alteration. These animals then display mating instincts, sometimes taking the initiative in courtship behavior, and accept coitus. In young animals with ovaries removed, injections of this hormone was followed by sexual maturity and heat within four days, which was twenty to fifty days in advance of the usual time.

From the standpoint of bio-chemistry it is significant that this ovarian hormone is of lipid nature rather than protein, and that the follicle fluid also contains phospholipins and cholesterol. The hormone is extracted with alcohol, acetone and ether. It does not saponify and the final ether extract contains cholesterol in addition to the hormone. The cholesterol is removed by precipitation with digitonin. The hormone does not then give the color reactions of cholesterol. This close association with cholesterol is of interest from the viewpoint of this paper.

The essential part which substances of a lipid nature play in the physiology of sex is now being demonstrated from another angle. That one or more lipoids of a specific or vitamine nature are essential for reproduction is shown by recent observations on the relation of dietary factors to reproduction and to the growth and fertility of the offspring.⁴ Evans and Bishop⁴ found that female rats were sterile when reared and kept on a synthetic diet which was not deficient in any of the known vitamins or essential amino acids. Fertility was restored on feeding lettuce leaves and grain. Alcohol-ether extracts of these were effective. The observations of Sure⁴ demonstrate that this essential food factor for reproduction is much more abundant in vegetable oils than in animal fats. This is particularly significant in view of the fact that the phytosterols of vegetable oils are the chief source of cholesterol for the body.

Basal Metabolic Rate.—That the suprarenal cortex and lipid metabolism may be involved in dementia præcox is further suggested by the occurrence of a low basal metabolic rate in many cases. Several independent observers⁴ have found a low basal metabolism in from one-third to one-half of the patients studied, and some relation to the phase of the disease seems to exist. Rates above normal are not often found in psychotic patients without

signs of hyperthyroidism, even in those so excited as to make absolute physical rest difficult to obtain. This low rate of oxidation in certain cases and phases of dementia præcox has not been explained. The patients show no other evidence of myxedema. The failure of oxidation is apparently rather acute and associated with the more active and acute phases of the psychosis. No comparable acute disturbance of oxidation seems to be recognized clinically. It has been observed, however, by Aub and others²² that a low basal rate follows removal of the suprarenal. It cannot be concluded from this that the suprarenal governs oxidation or that oxidation of lipoids occurs in the suprarenal. It seems more likely that the supply of lipoids, in a form suitable for oxidation in the other tissues, is cut off.

Significance of Blood Cholesterol.—On the basis of the evidence reviewed above, it has been considered worth while to study the lipid metabolism of patients with dementia præcox. To do so would be to approach the brain, the testis and ovary, and the suprarenal cortex from the standpoint of physiology, as well as to observe one of the vital processes of metabolism. The value of the results would not necessarily depend on any relationship between these organs, since substances of a lipid nature play an essential part in the functional activity of each. The results could not be interpreted as a direct measure of brain function or sex function, but rather as a measure of the fundamental process on which the functional metabolism of brain and sex directly depend.

Cholesterol was one of the first blood constituents to be determined colorimetrically, by Grigant in 1910. There is now a large literature on blood cholesterol under various physiological and pathological conditions. The metabolic significance of cholesterol, however, is only beginning to be appreciated and understood. Thanks largely to the work of Bloor²³ and his pupils, there is an increasing amount of evidence that cholesterol has an essential part in lipid metabolism, and that this function is manifest in the relation of the cholesterol to the other blood lipoids, lecithin, fatty acids and neutral fat.²⁴ So that unusual variations in the blood cholesterol may be interpreted as evidence of a disturbance of lipid metabolism, provided other conditions which influence the amount can be controlled or eliminated. In fact, there is a more or less definite metabolic factor present in certain of these con-

ditions, notably diabetes, nephrosis and arterio-sclerosis, in each of which an increase occurs.

It would be desirable to determine each of the blood lipoids. We have begun with cholesterol largely because more is known of the factors which influence it and more suitable methods are available. In the beginning of this work we attempted to determine also the lecithin and inorganic phosphorus, but had the same difficulties as Whitehorn.

Technic.—The saponification method of Bloor²¹ has been used. It is satisfactory and probably the best available. From this experience we are convinced that saponification and the use of a cholesterol standard are essential to an accurate and satisfactory method. In comparing results by different methods the question of saponification must be considered since those without saponification mostly give higher results, and if not it seems doubtful that all of the cholesterol has been recovered from the blood. Some of the bloods which gave the lowest and highest results by this method were also put through the former method of Bloor without saponification, and the results were correspondingly low or high for that method.

The figures presented here are all averages of two or more consistent determinations on at least one alcohol-ether extract. In nearly all of the dementia præcox cases two extracts were made from the plasma, and in some also from the whole blood. It is necessary to make duplicate consistent readings on the extract for the reason that the drying is the most difficult step and the chief source of error. After a thorough experience with the method, we had arrived at the following as a minimum: Two extracts from plasma with duplicate determinations on one extract and one determination on the other. If these three readings are consistent no further determinations are made. It must be emphasized that this is quantitative chemical analysis and must be carried out with the necessary skill and constant attention to secure reliable results.

The bloods were all taken between 9 and 10 a. m. and extracted within one hour. The patients were without breakfast except in a few instances where orders were not carried out. These were repeated and only slight differences found. The routine hospital breakfast probably has little effect on the total blood cholesterol, but the fasting state is best taken as a standard. Hemoglobin was

estimated by the method of Newcomer, using glass standard in a Duboscq colorimeter, or by the Tallquist scale.

Results.—The net results are shown in Table 1, and figures for individual patients in the succeeding tables. In determining the averages in Table 1, the figures for the blood plasma were used except where no determinations were made on plasma. In such cases the figures for whole blood were used. This may be seen from the other tables. The average for six manic-depressive cases is from the plasma in four cases and whole blood in two, and the average for thirteen cases of general paralysis is all from the whole blood except one.

The most definite and striking result, as shown by Table 1, is that in deteriorated male patients with dementia præcox the blood cholesterol is unusually low, as compared with females showing comparable deterioration, and with patients having other psychoses. These males are shown in Table 2, where it will be seen that the results are consistently low except for the last two cases. One of these may possibly be due to the diet. Eggs are rich in cholesterol and this patient had been receiving 4 to 8 eggs daily for several months. Deteriorated females did not give such low readings except in one or two cases, Table 3.

The next most definite result, shown in Table 1, is that male patients recently admitted, who were selected as probable cases of dementia præcox in the acute excited phase, also had a low blood cholesterol. These are shown individually in Table 4. In comparison to the acute and deteriorated phase of dementia præcox in males, it was found that six patients with normal or high cholesterol were not deteriorated but had passed the acute phase, Table 5. There is some evidence, then, that the blood cholesterol has some relation to the clinical course of dementia præcox in males.

In the cases here reported no relation has been discovered between the blood cholesterol and the age of the patient, the physical type or the development of individual physical factors as sex and bone, or the state of nutrition. More extensive observations may bring out some such relation, however. The first and third patients in Table 6 approached the acromegalic type, while the other four presented incomplete development in one way or another, and so were similar to the average hebephrenic.

TABLE 1.
BLOOD CHOLESTEROL.

Males			Females	
		Mg. per 100 c. c.		Mg. per 100 c. c.
Dementia præcox-deteriorated	16 cases	118.3	11 cases	144.6
Recent admissions (acute phase of dementia præcox?)	5 cases	104.6	1 excite.	125.1
			1 stupor	173.0
Dementia præcox, no deterioration.....	6 cases	176.2		
Manic depressive			6 cases	162.7
Other functional psychoses, not in acute phase	6 cases	149.2		
General paralysis	13 cases	167.3		
Normal		160		

TABLE 2.
DEMENTIA PRÆCOX—MALES—DETERIORATED.

	Cholesterol mg. per 100 c. c.		Hgb. % tall. or gm. per 100 c. c.	
	Whole blood	Plasma		
Apr. 11-24	113.6	93.3 ¹	15.1	Adm. Mar., 1920, age 18. Heb.
May 16-24	110.7	.....	80-90%	Adm. Dec., 1922, age 18. Heb.
Aug. 8-24	104.7	107.4 ¹	90%	Adm. Sept., 1921, age 16. Heb.
Aug. 14-24	126.5	110.1	.....	Adm. July, 1920, age 22. Cat.
Aug. 22-24	116.2	99.1	.....	Adm. July, 1915, age 17. Heb.
Sept. 15-24	124.1	122.5	.....	Adm. Mar., 1921, age 30. Par.
Oct. 14-24	103.4	106.7 ¹	13.6	Adm. Dec., 1920, age 29. Par.
Feb. 17-25	.....	120.4	16.1	Adm. May, 1918, age 16. Heb.
Feb. 17-25	103.4	117.4	15.3	Adm. Nov., 1924, age 34. Par.
				Pituitary gigantism, ht. 188, 5 cm.
Jan. 19-25	66.2	79.1	13.8	Adm. Dec., 1923, age 18. Heb.
Mch. 4-25	.....	100.2	10.6	Adm. July, 1921, age 13. Heb.
			80%	4,895,000 red cells.
Mch. 4-25	.....	138.0	15.7	Adm. Feb., 1922, age 19. Par.
Mch. 4-25	.....	137.4	14.2	Adm. May, 1918, age 33. Par.
Mch. 4-25	.....	126.2	13.6	Adm. Aug., 1918, age 34. Simple
Oct. 23-24	153.2	152.1	80%	Adm. Mar., 1917, age 19. Heb.
July 15-24	128.7	173.6	.....	Adm. Feb., 1922, age 29. Cat.
				Marked catatonic rigidity since adm.
				Tube-fed milk and eggs.

¹ See table 7.

TABLE 3.
DEMENTIA PRÆCOX—FEMALES—DETERIORATED.

		Cholesterol mg. per 100 c. c.		Hgb. gm. per 100 c. c.	
		Whole blood	Plasma		
Apr. 8-24	207.1	.....	.....	.....	Adm. Oct., 1920, age 15. Cat.
July 1-24	138.0	.....	.....	.....	Adm. Feb., 1923, age 23. Par.
July 29-24	126.0	.....	.....	.....	Adm. Jan., 1922, age 19. Heb.
Nov. 3-24	144.0	161.9	.....	.....	Adm. June, 1924, age 30. Par. 1st adm. 1917 m. d. mixed
Dec. 20-24	84.5	97.8	.....	.....	Adm. Aug., 1921, age 39. Par.
Feb. 20-25	.....	144.9	12.7	.....
Jan. 15-25	105.8	133.1	.....	.....	Adm. Dec., 1921, age 36. Par.
Feb. 21-25	.....	140.7	14.2	.....	Adm. Dec., 1922, age 21. Par.
Mar. 3-25	.....	155.1	11.9	.....	Adm. Oct., 1922, age 36. Par.
Mar. 3-25	.....	104.8 ¹	12.0	.....	Adm. May, 1922, age 22. Heb.
Apr. 7-25	.....	148.8	11.2	.....	Adm. Feb., 1921, age 29. Par.
Apr. 7-25	.....	153.9	12.0	.....	Adm. June, 1916, age 32. Heb.

¹ See table 7.

TABLE 4.
RECENT ADMISSIONS—MALES.
(Acute phase of dementia præcox?).

		Cholesterol mg. per 100 c. c.		Hgb. gm. per 100 c. c.	
		Whole blood	Plasma		
Sept. 12-24	112.5	102.3	.....	.....	Adm. Aug. 30, 1924, age 15. Excite- ment.
Oct. 21-24	114.9	106.5	.....	.....	Adm. Oct. 11, 1924, age 22. Excite- ment.
Sept. 12-24	121.0	115.0	.....	.....	Adm. June, 1924, age 18. Psychosis with epilepsy, dementia præcox not excluded.
Jan. 16-25	75.5	84.9	12.4	.....	Adm. Jan. 3, 1925, age 18. Heb.
Jan. 22-25	.....	114.5	15.1	.....	Adm. Jan. 15, 1925, age 17. Acute excitement with elation, ideas of strength, genius, and sexual purity. Trend against mother. Recent love affair. 5,890,000 red cells.
Feb. 14-25	.....	126.9	.....	.....	Improved.

Before it can be concluded that a low blood cholesterol has some significance in dementia præcox, the other conditions in which it occurs must be excluded. The two conditions in which the blood cholesterol is constantly and definitely low are severe anemias and acute infections. It is frequently low in advanced tuberculosis and cancer, but in each of these anemia and secondary infection seem

TABLE 5.
DEMENTIA PRÆCOX—MALES—WITHOUT DETERIORATION.

	Cholesterol mg. per 100 c. c.		Hgd. gm. per 100 c. c.	
	Whole blood	Plasma		
Mar. 27-24	148.5	.....	.....	Adm. July, 1922, age 17. Simple. Paroled 1923, returned 1924, vagabond. Works in kitchen.
Apr. 3-24	165.7	.....	.....	Adm. Oct., 1922, age 19. Cat. Paroled Apr. 23, 1924, great improved.
July 22-24	134.5	150.1	.....	Adm. Sept., 1922, age 16. Cat. Enlarged thyroid. Paroled 1923, improved. Returned later. Now working as attendant, Apr., 1925.
Aug. 14-24	160.8	202.7	.....	Adm. July, 1923, age 19. Heb. Paroled Aug. 22, 1924. Feminine features, overt homosexual.
Oct. 16-24	135.7	183.9	.....	Adm. May, 1923, age 18. Heb. Working.
Feb. 27-25	151.5	196.5	13.1	Adm. Oct., 1924, age 21. Par. Onset with excitement. Now quiet with partial insight, but evasive and inactive.

to be the determining factors.⁸⁷ The red blood cell has some function in fat metabolism.⁸⁸ The cholesterol is not appreciably lowered, however, until the red cell count falls below 50 per cent of normal. Blood cholesterol results as low as are reported here are found in patients with pernicious and severe secondary anemia with cell counts below 2,000,000 and hemoglobin below 50 per cent. No such severe grades of anemia could be discovered in our patients. As

shown in the tables, hemaglobin estimations were made in nearly all of those with low readings for cholesterol, and in several of them red cell counts were also made. In 11 males shown in Tables 2 and 4 the hemaglobin averaged 14.1 gm. per 100 c. c., while in 6 females in Table 3 it averaged 12.3. The hemaglobin was thus higher in the group of males with low cholesterol than in the

TABLE 6.
OTHER FUNCTIONAL PSYCHOSES—NOT IN ACUTE PHASE.

	Cholesterol mg. per 100 c. c.		Hgb. % tall. or gm. per 100 c. c.	
	Whole blood	Plasma		
Mar. 28-24	204.2	.....	.....	Adm. Feb., 1922, age 29. M. D. dep.
Aug. 18-24	179.1	182.2	.....	Paroled Sept., 1924.
Apr. 4-24	150.0	.....	80-90%	Adm. Apr. 12, 1924, age 23. Psycho- neurosis, psychasthenic. Infantile genitalia.
Apr. 3-24	164.4	.....	.....	Adm. July, 1922, age 22. Psychoneu- rosis, anxiety.
Jan. 26-25	148.5	141.4	17.5	Adm. Nov., 1924, age 16. Psychosis with mental def. Episode of excite- ment. Recovered.
Jan. 22-25	147.0	145.3	13.5	Adm. July, 1924, age 17. Psy. with men. def. Episode of excitement. Rec.
Mar. 2-25	.....	129.3	15.1	Adm. Oct., 1924, age 16. Psy. with men. def. Episode of exc. Recov- ered.
Mar. 2-25	.....	147.3	12.8	

females where it was not so low. Anemia is evidently not the reason, therefore, why the males had a low cholesterol. None of the red counts were unusually low.

Acute infection was not detected in any of the cases here reported with low cholesterol. They were all ambulatory patients and had no recognized physical disease. The temperature was taken morning, noon and evening, for 3 days in several of those having the lowest readings and no fever detected. One patient in the deteriorated male group had a chronic cough and had lost

weight, but his cholesterol was 137.4 mg., considerably higher than the average. Except for this patient no evidence of tuberculosis was detected. In those with a low cholesterol, and in several of the females who had lost considerable weight, physical examination of the chest revealed no physical signs. Tuberculosis, then, may be excluded as the cause of the low cholesterol in these patients, at least in such advanced and active forms as produce low reading.

The "state of nutrition," the amount of fat stored in the subcutaneous areas and elsewhere, shows extreme variations in many patients with dementia præcox, especially females. No explanation for this is available. In the series exhaustively studied by the Psychiatric Institute during the past five years several females have been seen to lose 30 to 100 pounds in the course of one or two years. They show no evidence of tuberculosis. Their blood cholesterol is not unusually low, although they show marked deterioration. The low cholesterol cannot be correlated with the "state of nutrition."

Cholesterol Feeding.—That a diet inadequate in fat or cholesterol might be the reason for the low blood cholesterol has been considered. All of the patients, however, were receiving practically the same diet, which was apparently adequate in this respect, and the diet would certainly not explain the difference between males and females. To cover this point more thoroughly, and to observe any effects which might occur, an attempt was made to increase the blood cholesterol in four patients by feeding cholesterol and the vegetable oils rich in phytosterols. It is established that cholesterol feeding will increase the amount in the blood.⁴ Three of the deteriorated male patients, Table 2, were transferred to the Institute ward and placed on extra diet, to which was added 4 eggs daily. Cholesterol in olive oil was then added to this diet, in one case. The one female patient with an unusually low reading was similarly treated. The results are shown in Table 7. No appreciable and persistent increase in blood cholesterol occurred, and no striking clinical changes were observed. It may be that more prolonged feeding or larger doses would have produced some other result. No unfavorable effects were noted. Patient "Male 1" gained 15 pounds during the feeding, but the others showed no change in weight.

These four cases demonstrate certain additional points. The blood cholesterol was low on repeated examinations. Forty-three separate determinations were made on seven specimens of blood from "Male 1," and were quite consistent. These four patients were in very good states of nutrition, "Male 1" and "Female 1" being rather fat. None of the four presented clinical evidence of

TABLE 7.

DEMENTIA PRÆCOX—DETERIORATED. EFFECT OF DIET ON BLOOD CHOLESTEROL.

Male 1				Male 2				Male 3			
Mg. per 100 c. c.				Mg. per 100 c. c.				Mg. per 100 c. c.			
		Whole blood	Plasma			Whole blood	Plasma			Whole blood	Plasma
1924											
Apr.	11	113.6	93.3	Aug.	11	104.7	107.4	Oct.	14	103.4	106.7
July	8	119.7	100.5								
Oct.	25	Transferred to special ward, with liberal diet, which was taken.									
Nov.	11	109.6	104.7	Nov.	11	119.5	156.0	Nov.	13	127.8	134.7
				Nov.	25	93.4	100.4	Nov.	21	101.2	102.1
Nov.	25	Milk and four eggs daily added to diet.									
Dec.	11	61.4	80.6	Dec.	18	73.1	87.5	Dec.	19	101.3	123.3
1925											
Jan.	5	96.1	101.9	Jan.	5	94.0	122.5	Jan.	2	111.1	127.3
Jan.	16	Cholesterol 1 gm. daily in olive oil added to diet.									
Jan.	31	128.1	121.1	Jan.	5	5,660,000 red blood cells. Hgb. 14.4 gm.					
Feb.	2	103.4	105.3	Weight 155 pounds.							
Female 1											
Mar.	3	104.8	4,450,000 red blood cells. Hgb. 12.2 gm.								
Mar.	7	Transferred to special ward, with liberal diet. Wt. 138 lbs.									
		1 gm. cholesterol daily, in corn oil "Mazola," added to diet.									
Apr.	7	130.7	Third day of menstruation.								
Apr.	23	115.2	No gain in wt., no clinical change. Hgb. 13.1.								

physical disease. The three males represented three types of physical make-up. Patient "Male 1" showed feminine fat distribution, almost no beard, and had one large testis, the other being undescended. "Male 2" was of the asthenic type, with marked redness and sweating of hands, while "Male 3" presented some acromegalic features, with pronounced bony features of the face and excessive growth of beard and body hair. "Female 1" presented nothing unusual in physical make-up.

Discussion.—The above observations seem to show that in many patients with dementia præcox the blood cholesterol is unusually low, and that such findings may be more directly correlated with the psychosis and with sex than with any other recognized factors. The nature and significance of these relationships remain to be determined. As suggested earlier, the results seem to indicate a disturbance of lipoid metabolism. But to explain the relation of such a disturbance to the psychosis will require many more facts, both clinical and physiological.

That some correlation of sex, some differences in pathology according to sex, should occur in a disease presenting such outstanding and frequent sex symptoms as does dementia præcox, is rather to be expected. The fact that some sex difference seems to exist, and that the results are in accord with the differences in sex development and behavior referred to at the beginning of this paper, and with the relation of the suprarenal to sex, would seem to emphasize the significance of the findings. Further observations will be necessary to determine whether in females the blood cholesterol must be correlated with homosexual factor as well as with the phase of the psychosis. The significance of any relation to sex remains to be determined. We do not wish to attempt to explain the low cholesterol in terms of gonad or suprarenal, or any other gland. Our present knowledge, as reviewed above, would not warrant it.

Abnormal thyroid function influences the blood cholesterol. Low readings are found in exophthalmic goitre and toxic adenoma,⁶⁶ while high readings are found in myxedema. None of our patients showed evidence of either. The low basal metabolism in dementia præcox speaks against the low cholesterol being due to hyperthyroidism. The evidence all points to a reduction in oxidation in dementia præcox, rather than an increase. The results reported here suggest that this reduction involves the lipoid metabolism.

Previous Observations.—There are very few reports in the literature with which the above results may be compared, and most of these are unsatisfactory from either the clinical or technical aspect, or both. The conception of dementia præcox still varies, and several technical methods have been used which now seem

questionable. Other factors are not controlled. The only recent report, and the most satisfactory, is that of Parhon," using the method of Grigaut which is similar to that used here. Parhon studied 10 cases of dementia præcox, all but two of which gave readings below 150 mg. per 100 c. c., ranging from 120 to 146. He also reports readings of 110 in each of two males, age 23 and 45, with "melancholia" and a reading of 95 in a female aged 20 with "melancholia." The results of Pighini " show such wide variations as to cause doubt as to their value, for reasons stated above.

SUMMARY.

That some disturbance of lipoid metabolism may occur in dementia præcox and may involve the suprarenal cortex, has been suggested by the following: (a) Previous observations on the sexual development and behavior of these patients. (b) The evidence that the suprarenal cortex is involved in these disturbances of sexual development. (c) The evidence that the suprarenal has both an embryologic and functional relation to the gonads on the one hand and to the brain on the other. (d) Substances of a lipoid nature play an essential part in the functional metabolism of each of these organs. (e) The female sex hormone and the vitamine for reproduction are both of a lipoid nature. (f) The low basal metabolic rate frequently observed in dementia præcox suggests an involvement of the suprarenal. The evidence for these considerations is reviewed. The significance of cholesterol is discussed.

Blood cholesterol determinations, by the Bloor method, are reported on 40 patients with dementia præcox and on 27 with other psychoses. In 16 males with dementia præcox classed as deteriorated the average for the blood cholesterol was 118.3 mg. per 100 c. c., while for 11 similar females it was 144.6 mg. In 5 males recently admitted and selected as representing the acute excited phase of dementia præcox, the average was 104.6 mg. In 6 males without deterioration it was 176.6 mg. In 6 males with other functional psychoses not in acute phase 149.2 mg. In 13 males with general paralysis 167.3 mg. In 6 females classed as manic-depressive 162.7 mg.

Other possible causes of a low blood cholesterol were eliminated. Four patients were given extra diet including 4 eggs daily with no persistent increase in the blood cholesterol. Two of them were also fed 1 gm. cholesterol daily with the same result.

The results seem to show that in many patients with dementia præcox the blood cholesterol is unusually low, and that it may be more directly correlated with the psychosis and with sex than with any other recognized factors. That some correlation with sex seems to exist is considered significant and in accord with the considerations which suggested the work.

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THE INORGANIC CONSTITUENTS OF THE BLOOD OF CATATONIC PATIENTS.*

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In a recent communication¹ from this laboratory it was shown that the creatine content of the blood of catatonic patients showing marked rigidity was considerably increased above the value found in a group of normal controls. The creatine nitrogen for the rigid catatonics was 4.18 mg. per 100 c. c., while that for the controls was 2.60 mg., an increase of 1.58 mg. In terms of total nitrogen the percentage figures were 12.9 for the catatonics and 8.42 for the controls, an increase of 4.5 per cent.

During the course of this investigation it was noted that some of the patients showed a tendency to bleed for some time after the needle was removed. It occurred to me that this might possibly be connected with a decrease in the calcium content of the blood, and that the muscular rigidity might be associated with a type of tetany.

There are two theories as to the cause of tetany. The first of these ascribes the attacks to a decrease in the calcium of the blood, and the other relates the seizures to an increase in the guanidine content of the blood.

In 1907, Fuhner² stated that there was some relation between the different forms of tetany and guanidine poisoning.

In 1920, Sharpe³ demonstrated the presence of guanidine products in the feces of infants suffering from tetany.

In 1922, Bayer⁴ showed a decrease in the calcium content of the blood in guanidine poisoning.

* Read at the eighty-first annual meeting of The American Psychiatric Association, Richmond, Va., May 12, 13, 14, 15, 1925.

¹ Looney, J. M.: *Am. J. of Phys.*, 1924, LXIX, 639.

² Fuhner: *Arch. of Exp. Path. v. Phar.*, 1907, 58.

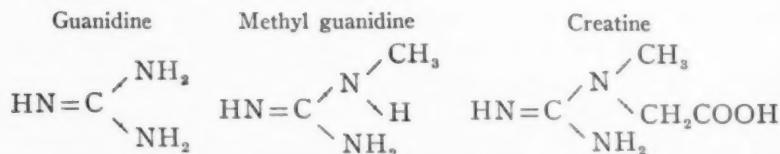
³ Sharpe: *Biochem. J.*, 1920, 14, 14.

⁴ Bayer, Z.: *F. d. ges. Esp. Med.*, 1922, 24, 119.

In 1924, Noel Paton^{*} demonstrated that in guanidine poisoning the hyperexcitability to electrical stimulation, the clonic eclamptic attacks, the laryngospasms and the carpalospasms were very similar to those found in tetany. Fritz V. Graevenitz^{*} in a paper just published concludes that monomethyl guanidine is much more efficacious in producing muscular twitching and in increasing muscular tone than is guanidine. He injected the drug in the lymph sac of frogs.

It would appear therefore that there is an inter-relation between the lowering of the calcium of the blood and the simultaneous increase in guanidine and that both are factors in the production of tetany.

Creatine is a derivative of guanidine and is formed from the latter by the substitution of a methyl group and an acetic acid group for two of its hydrogens as may be seen from the following structural formulæ:



It seemed worth while therefore to determine the calcium content of a group of rigid catatonic patients in whom I had previously demonstrated an increase of creatine with a view to determining whether there was any relation between the calcium level and the degree of rigidity. The following paper is a preliminary report of the results obtained up to the present time.

The investigation deals with 18 cases of dementia præcox that have shown evidence of catatonic rigidity over a considerable period of time. These cases were obtained through the courtesy of the medical staff of Springfield State Hospital, Sykesville, Md., and I wish to take this opportunity to express to them my appreciation of their kindness. Six of these cases, namely, III, V, VII, VIII, IX, XVI of Table I, had previously been studied and found to have an increased amount of creatine. These patients were much less rigid at this time than they were in the previous

^{*} Paton, Noel: Quart. J. Exp. Physiol., 1924, 10.

^{*} Graevenitz, Fritz V.: Arch. of Exp. Path. v. Phar., 1925, 105-278.

study so that no correlation could be made with the creatine content determined at that time. Blood specimens were obtained from each and the calcium magnesium potassium and sodium content of the serum determined. The figures for the last three were within normal limits, namely, between 320-350 mg. for sodium, 17-21 mg. for potassium, 2.2-2.5 mg. for magnesium. The calcium figures for 11 of these cases fell below the figure 9.5 which is the minimum normal. The average being 9.06 which is definitely lower than the normal average of 10.0 mg. per 100 c. c. In fact the average for the remaining eight cases is still below this figure, this value being 9.86 mg.

In Table I, I have tabulated the calcium figures for these 18 cases beginning with the lowest. It is interesting to note that the lowest figures obtained were given by the cases showing the most marked muscle tension with the exception of Case VIII. This case in the previous investigation showed the greatest tension and also gave the highest figure for creatine. The tension at present is that of a great mental distress and not that of set rigidity. The patient continuously repeats the single word "Blurtha" (Bertha) through clenched teeth.

The last two cases with normal calcium content show a clinical picture very suggestive of hebephrenia.

It was felt that increasing the calcium content of the blood of these patients might possibly cause some alteration in the clinical picture, and so treatment was given to seven of the cases with the lowest calcium values.

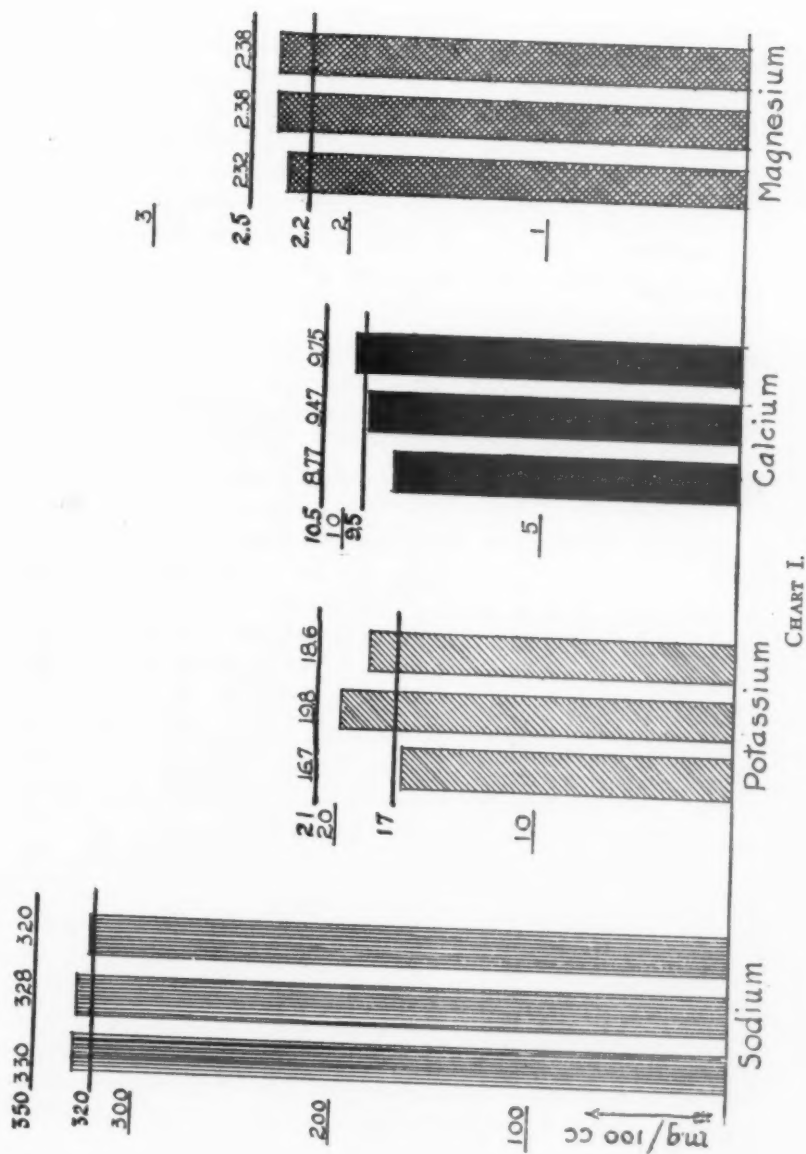
Table II gives the result of this experiment. The first figure in each case gives the value before treatment and the next two the values three and seven hours later. It is interesting to note that the first values correspond remarkably well with the figures given in the first table obtained three weeks before.

For Case IV, 8.81 and 8.62 mg.; Case VI, 9.11 and 8.43 mg.; Case V, 9.01 and 8.92 mg.; Case VII, 9.31 and 9.09 mg.; Case III, 8.81 and 8.72 mg.; Case I, 8.42 and 8.13 mg.; Case VIII, 9.41 and 9.50 mg.

The calcium content was raised about 1 mg. The sodium fell slightly and the magnesium remained practically unchanged. The potassium showed an increase.

TABLE I.

Casc.	Calcium. Mg. per 100 c. c.	
I	8.42	Male, æt. 45. Reduced motility. Marked manneristic posing of hands. Red and blue mottling of arms below tourniquet. Tendency to cerea flexibilitas.
II	8.52	Male, æt. 29. Marked cerea flexibilitas. Extremities cold. Considerable tension.
III	8.81	Female, æt. 45. Catatonic 17 years. Tube fed. Mute, untidy. Marked flexibilitas cerea. Extremities cold, cyanotic, with swelling of feet.
IV	8.81	Female, æt. 42. Under treatment 3 years. Usually stiff and tense. Marked mottling below tourniquet.
V	9.01	Female, æt. 46. Under treatment 11 years. At times in catatonic stupor. Muscular rigidity variable. Not now markedly catatonic.
VI	9.11	Female, æt. 24. Under treatment 3½ years. Stereotyped attitude. Drools saliva. Hands very cold. Chin rests on sternum but is held up when assisted.
VII	9.31	Female, æt. 61. Tense. Trembling legs. Tremor of lips. Hands clenched fixedly in lap. Expression of great distress never altered. Tube fed.
VIII	9.41	Male, æt. 23. Marked tension of facial muscles. Resists efforts to change position. Constant trembling of legs. Tension fairly natural in keeping with mental distress.
IX	9.41	Female, æt. 29. Mute, untidy, negativistic. Tube fed 1½ years. Markedly reduced motility.
X	9.41	Female, æt. 47. Mute. Anxious, perplexed expression. Some tendency of hand to assume position of tetany.
XI	9.41	Female, æt. 27. Under treatment 2 years. Excited. Cyanosis of hands. Mute. Command automatism. Retains saliva. Stereotyped attitude and actions. Mottling below tourniquet.
XII	9.50	Male, æt. 48. Mute, negativistic, untidy. Profound cyanosis of lower extremities. Tube fed. Catatonic type involuntal psychosis.
XIII	9.50	Female, æt. 20. Mute, indifferent. Some tendency to cerea flexibilitas. No rigidity. Some Schnautzkrampf.
XIV	9.70	Male, æt. 22. Tense, negativistic. Clonic trembling. Mute. Tube fed for six months.
XV	9.70	Male, æt. 19. Co-operative. Grinds teeth almost continually. No tension or rigidity.
XVI	10.00	Female, æt. 29. Negativistic. Tube fed for 3 years. Has been at times very rigid but is now fairly active.
XVII	10.00	Female, æt. 32. Disturbed, combative, fantastic in actions. Markedly negativistic, with great tension but no rigidity. Possible hebephrenia.
XVIII	10.91	Female, æt. 24. Silly, tends to shield face. No rigidity but maintains stereotyped attitudes. Moves only when urged.
Normal	10.0	



The average change is given graphically on Chart I. The first bar in each case represents the average of the seven cases before treatment, the second bar three hours later and the third bar seven hours later. The lines drawn across the bars represent the normal maximum and minimum values.

There was no change noted in the clinical condition of the patients. This investigation is being continued and it is hoped that it will be possible to raise the calcium values up to about 15 mg. and keep it there for a period of at least a week so that the definite conclusions may be drawn as to whether such change results in any diminution of the muscle tension.

TABLE II.

Case.	Time.	Mgm. per 100 c. c. of serum.			
		Ca.	Mg.	K.	Na.
IV ...	10.00 A. M.	8.62	2.32	14.2	329
	1.45 P. M.	9.09	2.32	18.9	320
	4.40 P. M.	9.60	2.34	18.9	312
VI ...	10.05 A. M.	8.43	2.34	15.3	336
	1.50 P. M.	9.70	2.27	18.9	340
	4.45 P. M.	9.40	2.29	16.2	312
V ...	10.15 A. M.	8.92	2.44	17.3	318
	1.55 P. M.	9.21	2.42	20.4	318
	4.50 P. M.	9.30	2.42	19.0	317
VII ...	10.35 A. M.	9.09	2.39	14.3	328
	2.00 P. M.	9.90	2.32	19.3	327
	4.55 P. M.	10.10	2.32	19.0	308
III ...	10.50 A. M.	8.72	2.27	16.6	340
	2.10 P. M.	9.09	2.44	19.0	343
	5.15 P. M.	9.55	2.57	19.5	342
I ...	11.15 A. M.	8.13	2.27	19.6	331
	2.30 P. M.	8.92	2.34	18.5	318
	5.40 P. M.	9.50	2.37	21.3	331
VIII ...	11.45 A. M.	9.50	2.34	19.3	330
	2.45 P. M.	10.40	2.57	23.7	331
	5.50 P. M.	10.80	2.37	16.0	317
Normal ...		9.50-10.5	2.2-2.5	17.0-21.	320.350

MENTAL DISEASE IN THE UNITED STATES IN
RELATION TO ENVIRONMENT,
SEX AND AGE, 1922.*

By HORATIO M. POLLOCK, PH. D.,

Director, Bureau of Statistics, N. Y. State Hospital Commission.

Through the courtesy of the director of the Federal Census Bureau, I am privileged to present to you this morning some of the important data compiled for the report of the census of hospitals for mental disease taken January 1, 1923. This census, you remember, included the patients resident in hospitals on such date and the first admissions, readmissions, discharges and deaths of the year 1922. Altogether 526 institutions for mental disease were represented, of which 163 were state hospitals, 2 government hospitals, 148 other public hospitals, and 213 private institutions. The resident patients numbered 267,617 and those on parole or temporarily absent from the institutions, 22,839. The patients received by the institutions in 1922 included 73,063 first admissions, 16,392 readmissions, and 4607 transfers. The departures from the institutions comprised 52,777 discharges, 4731 transfers, and 25,556 deaths. Individual schedules for each of the movement groups were received from every state hospital, except that of Montana, and from nearly all of the private institutions.

This study is based on 63,624 first admissions whose environment, sex and age were reported on uniform schedules filled out by the employees of the hospitals engaged by the Federal Census Bureau for such purpose. Cases unascertained with respect to environment are not considered.

Thanks to the activities of the Committee on Statistics of this Association, the schedules included a caption calling for the mental classification of each patient. The data tabulated as a result of the census therefore not only sets forth facts concerning the patients of these institutions as a single class, but also data relating

* Read at the eighty-first annual meeting of The American Psychiatric Association, Richmond, Va., May 12, 13, 14, 15, 1925.

to each of the 22 clinical groups of the Association's classification. This greatly enhances the value of the census.

It may be an agreeable form of mental exercise to talk and compile figures about the insane as a homogeneous class, but the value of such data is very limited. The patients of the several clinical groups have little in common except that they live in the same type of institution, and knowledge of the characteristics of the so-called insane as a single group throws little light on the characteristics of the patients of any one psychosis. The charts to which I shall shortly refer show clearly that each of the principal groups of psychoses has its characteristic age and sex curve and that these curves vary widely from one another. The several groups also vary widely with respect to symptoms, prognosis, expectation of life, and duration of hospital life. In other words they are, in the main, separate disease entities and should be treated as such, both medically and statistically.

It is of course recognized that strict lines of demarcation cannot be drawn between some of the functional groups, but it is believed that fairly satisfactory uniformity in classifying the several groups has been attained.

In this series of charts we are dealing with rates of first admissions to institutions for mental disease from urban and rural communities in the United States, the rates in each instance being based on the general population of the same environment, sex and age. Cities and villages having a population of 2500 or over are considered as urban and all other places as rural. Each chart contains four curves which show relative rates for urban males, urban females, rural males and rural females, respectively.

Chart I includes the whole group of 63,624 cases and shows in condensed form rates for first admissions to institutions for mental disease in 1922.

It will be noted that the rate of first admissions under 15 years of age is very small for each group. As adult life is reached the rates rapidly increase; they also rapidly diverge. During the middle period of life the increase with advancing age becomes less marked, but in the years of old age is again accelerated. Comparing the curves for males and females of urban and rural environment we note that urban males have the highest rate of first admissions in each age group. Urban females have the next

In the succeeding charts you will observe how widely the curves for the separate groups vary from the general curves shown in Chart 1.

Chart 2 deals with 5927 senile cases. Patients with senile psychoses, as the term implies, constitute an advanced age group,

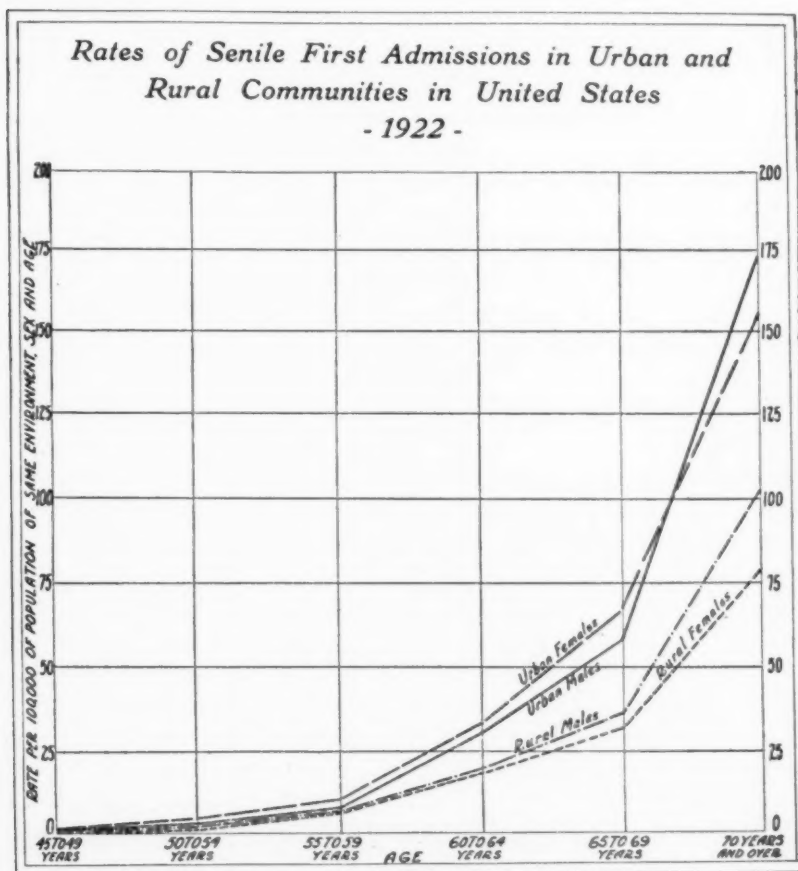


CHART 2.

there being but few under 55 years of age. The rate of senile psychoses naturally increases rapidly from 60 years of age upward. The general average rate of senile psychoses in cities is higher among women than among men, the rates being 34.3 and 29.4, respectively. In the separate age groups the women have a higher

rate in each group below 70 years. In rural districts the rate of senile psychoses is higher among men than among women, the general average rates being 23.1 and 20.3, respectively. In the age groups below 70 years, the rates in the two sexes vary

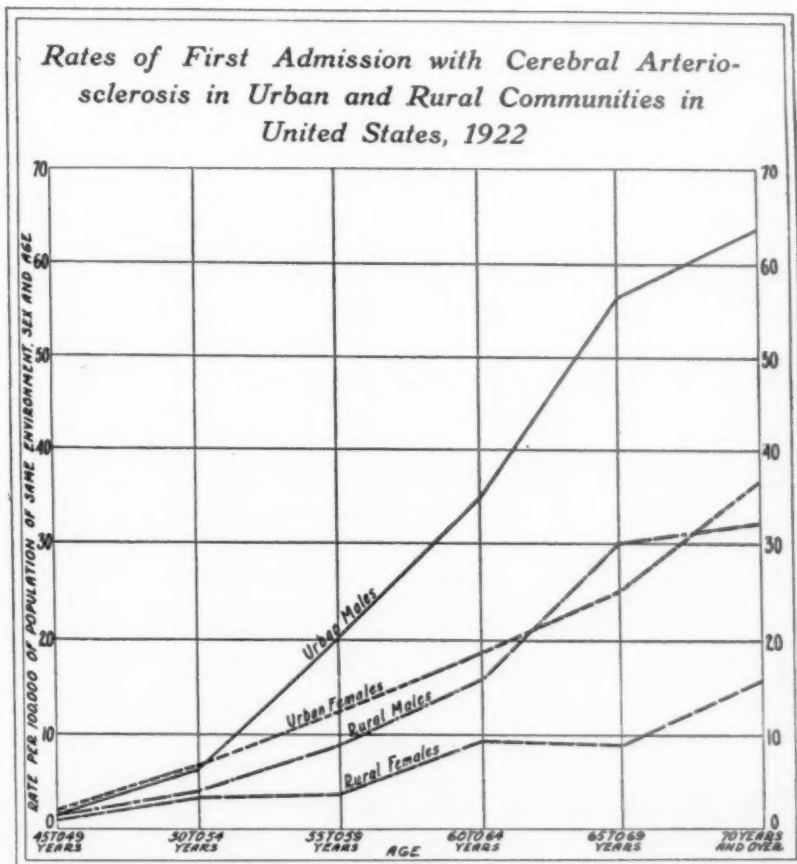


CHART 3.

but little, but in the group from 70 years and over the rate for men is 103.7 as compared to 80.3 for women.

Chart 3 comprises 3006 cerebral arteriosclerotic cases. Psychoses with cerebral arteriosclerosis are also diseases of advanced life. In these psychoses the rates of first admissions are higher

in cities than in rural districts and among males than among females. The rate for urban males is remarkably high compared with the rate for rural males. The rate for urban females in the earlier age groups is somewhat higher than that for rural males,

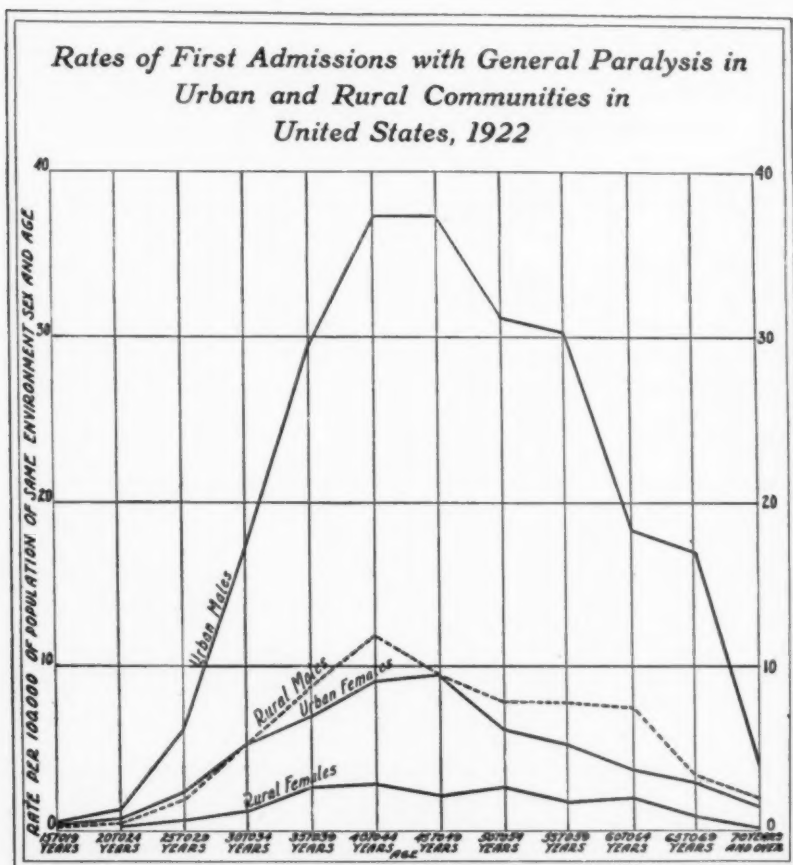


CHART 4.

but falls below the latter in the age group 65 to 69 years. The rates for rural females are the lowest in every life period. The general average rates in this psychosis are: Urban males, 21.1; urban females, 13.6; rural males, 12.4; rural females, 6.3.

Chart 4 deals with 5515 cases of general paralysis. Here we are dealing with a disease that has its onset principally in middle

life. As seen by this chart it is mainly a disorder affecting men in cities, the number of cases among urban men being nearly twice as great as the combined total of cases occurring among urban women and among rural men and women. The rate of first admissions among urban males is insignificant prior to age 25, but from that age upwards the rate increases with remarkable rapidity until the maximum is reached in the age period of 40 to 44 years. The rate remains at practically the same level until 50 years of age when it undergoes a rapid decline. The curve for rural males also reaches its peak at the age of 40 to 44 years and then irregularly declines. The curve for urban females reaches its peak in age period 45 to 49 years. The curve for rural females is relatively insignificant. The general average rates in this psychosis are: Urban males, 18.3; urban females, 4.4; rural males, 5.1; rural females, 1.3. I would call the special attention of health officers in cities to the results shown in this chart.

Chart 5 includes 2337 first admissions with alcoholic psychoses. It indicates to a considerable degree the respect in which the Volstead Act is held by the groups represented by the curves. The predominance of alcoholism among males stands out prominently and it is probable that the higher rates in cities reflects the freer use of alcohol therein. There were only 20 alcoholic women admitted to hospitals for mental disease from rural districts in 1922. These were probably suburbanites. The curve for urban males shows that the rate is very low up to 30 years. It increases rapidly until the maximum is reached at age 40 to 44 years. The rate then remains nearly stationary until age 60, when it undergoes a marked decline. The general average rates in this clinical group are: Urban males, 8.5; rural males, 2.5; urban females, 1.1; rural females, 0.1.

Chart 6 is based on 14,031 dementia præcox first admissions. This group is of special interest because it greatly outnumbers any other single clinical group. The group also has tremendous economic significance, as the onset of the disorder occurs comparatively early in life. The curves shown in Chart 6 correspond quite closely to similar curves worked out for over 9000 cases in New York State. It is believed that the chart forms a fairly good picture of the variations in rates of the admissions of the two sexes from urban and rural environments. It is apparent from

the chart that the rate in cities is very much higher than in rural districts. The rate among urban males is especially high in the early age groups. It shoots up rapidly from age 20 and reaches its maximum during the age period 25 to 29 years. During the

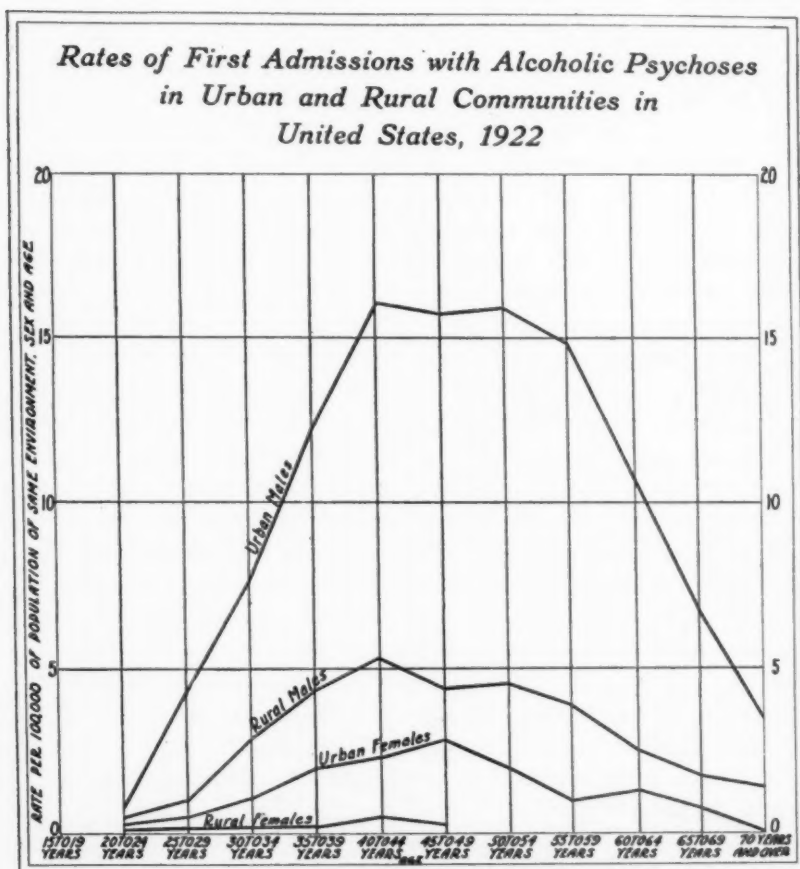


CHART 5.

succeeding quinquennial period it declines slightly and in the following periods the decline is very rapid. The rate for rural males is much lower than that for urban males but the maximum rate is reached at the same age period. The rate for urban females is much lower than that for urban males in the age groups under 35 to 39 years and much higher in the groups beyond that age.

The maximum rate for both urban and rural females is reached in the age group 30 to 34 years. The rate for rural females is the lowest of all. The general average rates in this clinical group

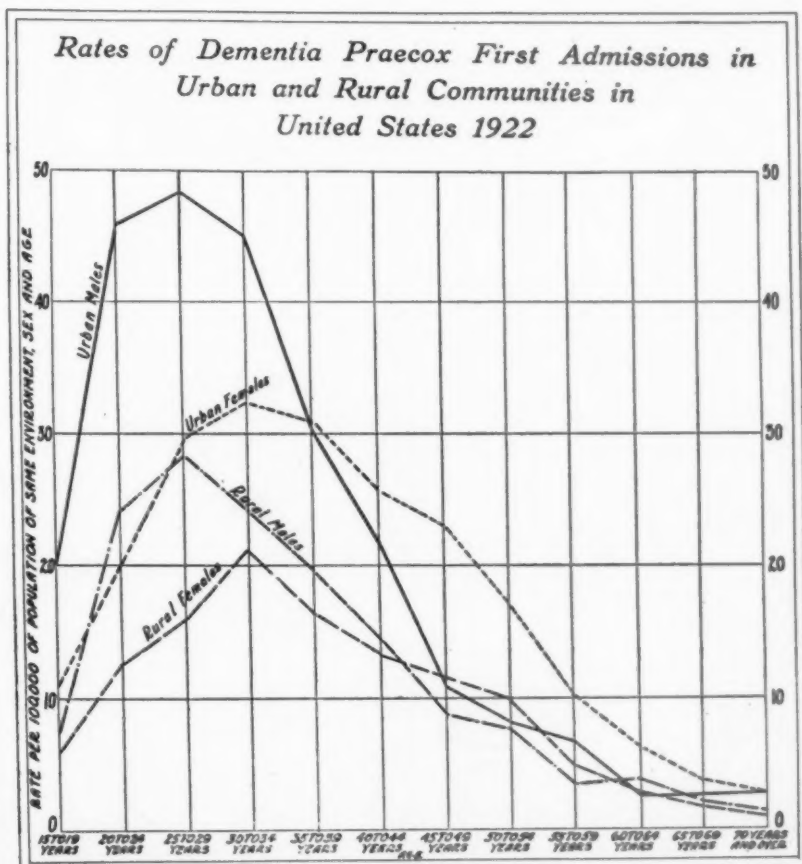


CHART 6.

are: Urban males, 27.9; urban females, 21.6; rural males, 14.9; rural females, 11.7.

Chart 7 is based on 10,028 manic-depressive first admissions. In this clinical group the rates for females greatly exceed those for males, the most marked differences being in the middle period of life. The highest rate is found among urban females, the

curve for this group being fairly symmetrical and reaching its maximum in the age period 45 to 49 years. The curve for rural females falls below that for urban females and reaches its maximum about five years earlier. The curve for rural males reaches

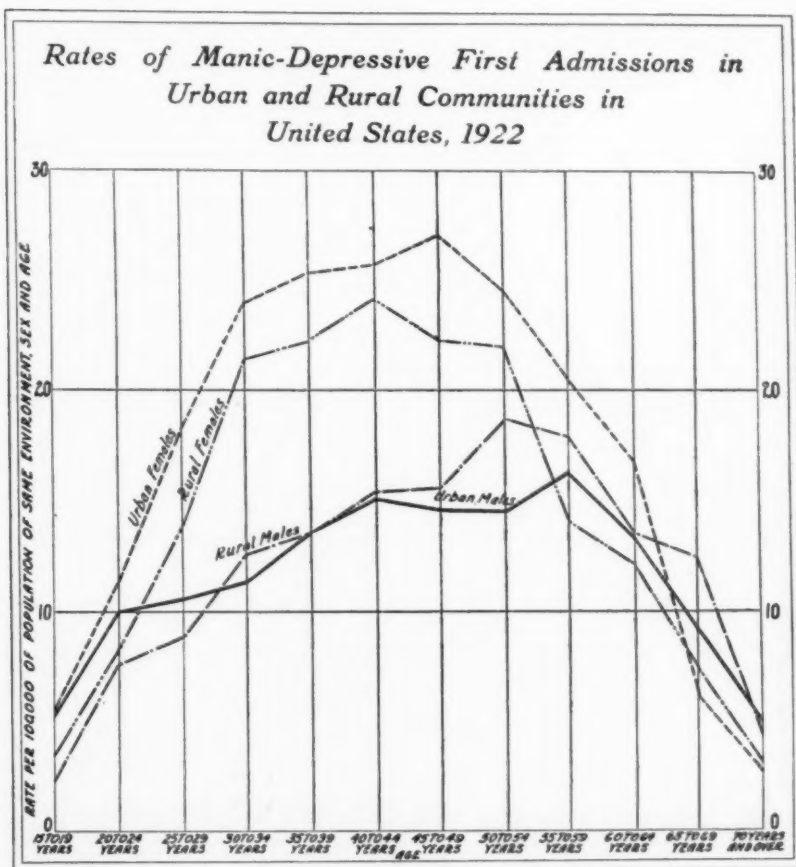


CHART 7.

its peak at age period 50 to 54 years and that for urban males in age period 55 to 59 years. It will be noted that there is marked correlation between the two curves for females and also between the two curves for males indicating that sex is an important factor in this mental disorder. The general average rates for the

four groups are: Urban females, 18.2; rural females, 14.6; urban males, 11.8; rural males, 11.2.

Chart 8 has to do with 1556 first admissions with involution melancholia. As would be expected the curves in this chart bear

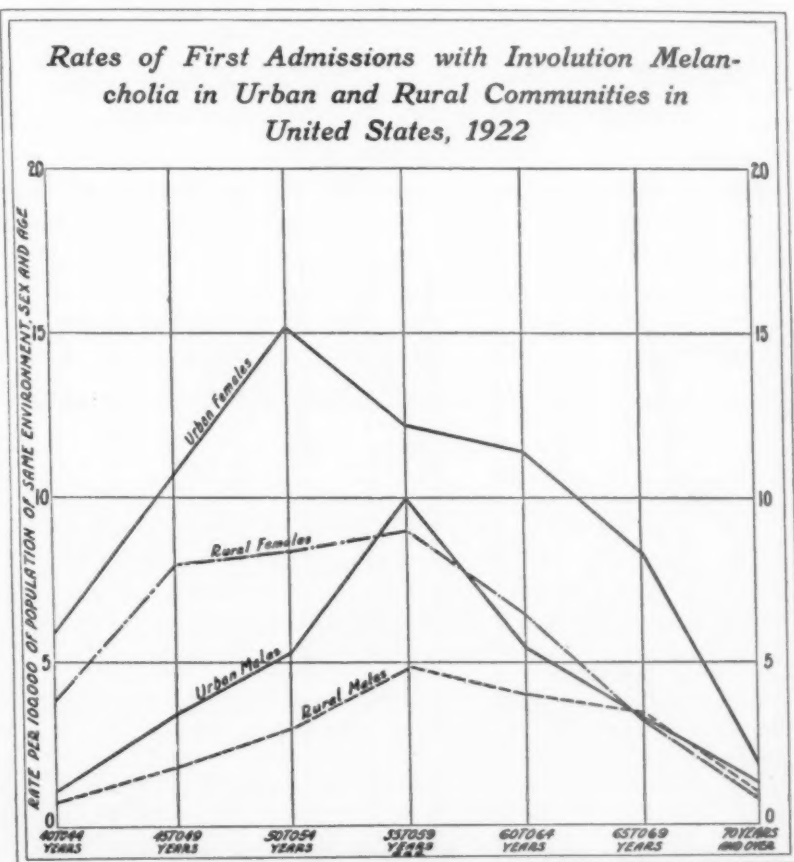


CHART 8.

some resemblance to those in the chart relating to manic-depressive admissions, but the rates are much lower and the age groups represented are more advanced. Urban females have the highest rate in this group at all periods of life. The rate for rural females is higher than the rates for urban and rural males during the early life periods, but in the age group 55 to 59 years, the

rate for urban males exceeds that for rural females. Rural males are represented by very low rates in this group. The general average rates in this clinical group are: Urban females, 9.6; rural females, 5.9; urban males, 4.1; rural males, 2.5.

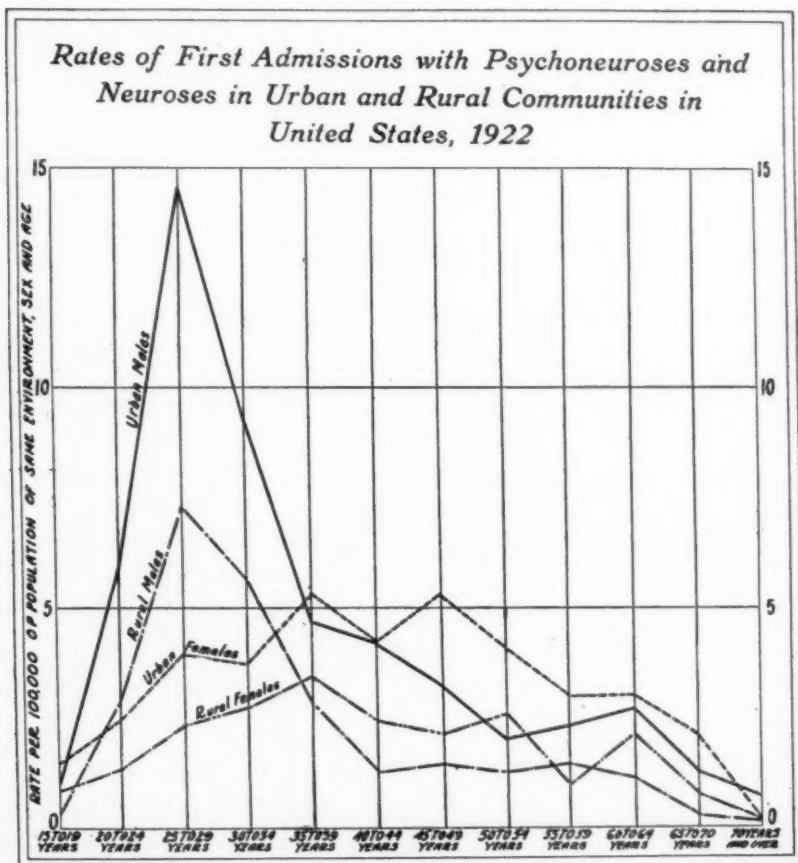


CHART 9.

Chart 9 deals with 2538 first admissions with psychoneuroses and neuroses. The most striking feature of this chart is the high rates for urban males in the age periods between 20 and 35 years. The rural males also have their highest rates during the same age periods, but the rates are very much less than those of urban

males. A considerable part of these male cases are ex-service men. The general average rates in this group are: Urban males, 5.6; urban females, 3.5; rural males, 2.6; rural females, 2.0.

The causes of the variations in rates that have been pointed out in these charts are but partly known. To discuss them adequately would take us far beyond the limits of this paper. The variations have great significance and should be taken into account by anyone attempting preventive work. Mental disease in the future will be largely a city problem. Syphilis and alcoholism can and should be eradicated. But aside from these it appears that the complexities of our large cities require more adjustments than many individuals are equipped to make. To better the situation it will be necessary to strengthen the individual and to lessen the stresses of city life. To accomplish this task will require the united efforts of parents, teachers, physicians and social and research workers on the one hand; and of employers, industrial leaders, city managers and economists on the other.

DISCUSSION.

DR. DEVLIN.—I would like to ask Dr. Pollock if he has noted the very marked increase in alcoholic psychoses in the past few years.

DR. GORDON.—Dr. Pollock's statistics are in entire accord with what we observe in our clinics and in private practice. This is correct with regard to various extrinsic and intrinsic factors which may play some etiologic rôle as exciting causes; as, for example, the influence of menopause. Particularly interesting are the data concerning the relationship of urban and rural life to various psychoses. The inference that might be drawn from the latter is very instructive in the analysis of preventive problems. With regard to the psychoses observed in the senile period of life, I would wish to ask the method by which Dr. Pollock succeeded in differentiating senile psychoses from psychoses with cerebral arteriosclerosis.

DR. POLLOCK (in closing).—Alcoholic mental disease in the United States has markedly decreased since 1910. The first data obtained for the country as a whole relative to alcoholic mental disease was compiled by the Federal Census Bureau in 1910. At that time the annual rate of admissions with alcoholic mental disease was 6.7 per 100,000 of general population. In the last census it was found that the rate of admissions of alcoholic cases was 3.0. In the statistics of New York State we have shown the rate of first admissions with alcoholic mental disease each year since 1908. The rate increased from 1908 to 1913; beginning with 1914 there was a marked decline and that continued through 1915; there was a slight reaction in

1916 and a further reaction in 1917. In that year the rate of alcoholic mental disease reached its maximum. In 1918 a marked decline took place and continued until 1920. The trend changed in 1921 and there has been an increase in alcoholic admissions each year since that time.

In the differentiation of the senile psychoses from psychoses with cerebral arteriosclerosis the census authorities followed the general directions prepared by Dr. Kirby for the statistical manual published by the National Committee on Mental Hygiene and the Committee on Statistics of this Association.

SOCIAL PSYCHIATRY—ITS SIGNIFICANCE AS A SPECIALTY.*

BY CLINTON P. McCORD, M.D., ALBANY, N. Y.

At a time when psychiatry has barely come into its own as a specialty it may seem presumptuous to suggest a further division of the field and to elaborate upon a group of problems that at first sight may appear to fall entirely within the scope of general psychiatry. Our experience, however, and a varied contact with psychiatrists who are functioning in divergent fields of practice lead us to feel that there is superficial appreciation in many quarters of the nature of the special demands that are increasingly made upon psychiatry by certain organizations. Reputable hospitals for mental disease are still discharging juvenile cases sent for study with the statement—"Not psychotic and not feeble-minded"—which offers no help to the social agency interested in the case. The title of this paper perhaps with greater aptness might be—"Psychiatry in the Service of Education, Health and Industry"—"The Application of Psychiatric Technique to the Problems of Child Guidance"—"Mental Hygiene and the Schools"—"Psychiatry in the Administration of Justice"—"Conduct Disorder as a Field for Psychiatric Research"—"Psychiatry and Its Contribution to Sociology"—or any composite of these titles that would fix attention upon the importance of proper training and viewpoint on the part of persons who are finding a new specialty in scientific activities in connection with schools, courts, business and industry, vocational adjustment bureaus, child guidance clinics, penal institutions, social welfare agencies, and in research work in institutions for persons with mental defect, disease or behavior difficulties. We aim to indicate in general the increasing demands that are emanating from the above named organizations and the need to be alive to the implications of these demands and the challenge in terms of special training and

* Read at the Eighty-first Annual Meeting of The American Psychiatric Association at Richmond, Virginia, May 12, 13, 14, 15, 1925.

technique that is implied. All psychiatrists will not care to function specifically in the approach to this set of problems, but a person working in any capacity in this field should have an appreciation of the possibilities of the new psychiatry in the interpretation of many of our social and educational difficulties and in the treatment and perhaps eventually the avoidance of these difficulties.

At last year's meeting of this Association, the Round Table on Social Psychiatry was attended by over fifty persons in the administrative field; hospital heads; psychiatrists doing work for courts, correctional institutions, school systems, child caring agencies, mental hygiene societies; and those engaged in private practice. There were many different attempts to define the boundaries of psychiatry; there were experienced and capable men who limited the application of the specialty to the diagnosis and treatment of psychoses within hospitals. Too many psychiatrists become institutionalized, and through seeing only more or less terminal, residual, or well delineated pictures of mental disorder come to be insensible to the early and more delicate shades of abnormality; the average staff may contain but one or two men who are equipped as students of behavior in its broader aspects. A goodly number of the round table group suggested some of the newer aspects of the subject and sought to make their definitions comprehend the applications of the science to the special fields in which were centered their individual interests. This portion of the discussion took on a trend which indicated, it seemed to us, the need for a better understanding of the contribution that should come from the application of psychiatry to education, child guidance and to research into the causes of conduct disorder, and, as a by-product which may doubtless be the chief end to be obtained—a constructive program of mental hygiene and prevention based on adequate research.

It has seemed to us that in various programs that have been given on what might be called applied psychiatry, the lines of appreciation between the psychiatrist on the one hand and the social worker and the educator on the other were not brought out in a way that might stimulate leaders in both the fields. This feeling was strengthened when I attended as a member the special committee meeting in Washington last summer to discuss jointly with officials of the National Education Association some of the

approaches to educational problems through psychiatric method. There seemed to be a distinct need to familiarize educational executives with the technique that psychiatry is prepared to offer in the service of education, and, conversely, psychiatrists in general seemed unfamiliar with the significance of demands for help that are arising from health, social, educational and correctional organizations.

Medical schools are not covering these matters in their courses in psychiatry. A study of the curricula as catalogued for fourteen of our leading medical schools reveals the relatively minor importance apparently attached to psychiatry in the undergraduate schedules even after the gain in recognition of the specialty that resulted from the World War and the activities of Dr. Thomas W. Salmon, the National Committee for Mental Hygiene, and other agencies during the post-war period. Tabulation of the hours given to psychiatry, to neurology, to obstetrics and to the minor specialties, such as skin, eye, ear, nose and throat, reveals the inferior place to which psychiatry is relegated on the program. In all but two schools psychiatry was apportioned less time in terms of lectures, clinic and ward work, than any of the other so-called minor subjects. In one school four times the number of hours was devoted to organic neurology than was given to psychiatry; in some schools obstetrics, eye, ear, nose and throat each received from the same number to approximately four times as many hours as psychiatry. A study of the courses in psychiatry as catalogued revealed but little provision for presenting to the student the increasingly important phases of the subject which might be considered under the heading Social Psychiatry, as tentatively outlined in this paper.

Psychiatry has a contribution to make to educational method, to social philosophy and to the actual program upon which a productive pedagogy must be based. A New York State education official recently said, when I told him something about the work of the state clinics for children under the New York State Commission for Mental Defectives, "Yes, these doctors are all right for hospital work, but when it comes to educational adjustment they don't know very much." We feel it should not be possible truthfully to make such a statement about any psychiatrist today no matter in what special capacity he functions.

I shall not attempt to detail the wide range of training essential in the person whose work as a psychiatrist brings him to a consideration of a group of social problems in the broadest sense of the term; these challenging conditions indicate a growing body of knowledge and method that certainly constitutes a sub-specialty if you will—Social Psychiatry. For the purposes of this paper which we desire to have brief and suggestive rather than detailed I had first thought to indicate the great variety of appeals to psychiatry for aid in the help or solution of problems that have distinct social implications and the necessity for psychiatry to develop a technique equal to these demands.

Talking with fourth year medical students I have gathered that their lack of interest in psychiatry is often due to a degree of realization of the broadness of the subject and its intricate aspects, coupled with an appreciation of how inadequate and uninteresting is the provision in their course of study through which their introduction to the subject is to be effected; their reaction, therefore, is frequently a sort of "what's the use" attitude. Medical schools should include in their courses in psychiatry definite instruction and clinical teaching in Social Psychiatry. Psychiatric clinics should offer facilities to local social welfare organizations, including schools and courts. These clinics should be equipped to make intensive studies of behavior cases now coming in increasing numbers for consideration; the feeble-minded, epileptic and psycho-neurotic as well as people with mild psychosis should be dealt with; agencies bringing cases for study should be given constructive recommendations for the management or disposition of such cases. Such clinics should be held preferably in connection with hospitals where diagnostic procedures in the various specialties would be available, and the staff of such clinics should include a psychologist and psychiatric social workers. The student should be trained in a complete consideration of the cases referred, including social aspects, organization, publicity and administration, diagnostic technique, and familiarity with the various types of treatment, reeducation and institutional placement. The student should have demonstrated to him and should have first-hand experience in examining delinquents, criminals and psycho-neurotics as well as the feeble-minded, epileptic, endocrine and psychotic individuals. Social agencies, physicians and parents

in increasing numbers are bringing us problem children for examination and recommendation; the student should receive training in handling such cases, that is, he should be familiarized with various kinds of intelligence and performance tests, with the psychology of mental mechanisms, with various types of institutional segregation and care, with the education and training of the feeble-minded in the community, with the court aspects of these various cases, and with methods of administration of mental hygiene clinics as community agencies. Special classes for mental defectives and for disturbed disciplinary cases in the public schools might be utilized as additional clinical material. Local institutions for dependent children also contain considerable material for teaching purposes. The special activities indicated above within the last few years have come to constitute a field of work for the psychiatrist quantitatively almost as significant as the remainder of the mental hygiene program. I have the pleasure to be associated with Dr. Amsden in the beginnings of just such a proposed program in connection with his courses and clinics at the Albany Hospital and Medical School. It would seem that to utilize this varied clinical material and to relate it definitely to the subject of general psychiatry will not only result in a well balanced introduction to the subject in the light of the newer advances in the field, but will color the course with an interest and a practicability which will appeal to the student and will go far toward attracting to the specialty the right type of person.

The minimum features of such a course in Social Psychiatry might be outlined as follows:

Lectures on:

- Mental Deficiency.
- Juvenile Delinquency.
- Psychiatry and the Criminal Courts.
- Types and Purposes of Institutional Care.
- Psychological Tests.
- The Child Guidance Movement.
- Psychiatric Research into Conduct Disorder.
- The Literature of Social Psychiatry.
- Mental Mechanisms and Behavior.
- Mental Hygiene Clinics, Social Psychology and Psychiatric Social Work.

Visits to:

Special, disciplinary, vocational and part-time school classes in public school system.

Juvenile, police and criminal courts.

Department of Public Welfare and Bureau of Health.

Associated Charities, House of Detention, orphan asylums and other local institutions caring for children, and at least one large industrial plant.

Accessible State or local institutions for the feeble-minded, epileptic, defective-delinquent and so-called problem child.

Demonstration clinics in connection with:

The Public School System.

The Children's Court.

The House of Detention for Juveniles.

The jail or other penal institution.

Local orphan asylums.

Where a well organized mental hygiene clinic exists in connection with the medical school then it should handle cases from the above sources, and legitimate publicity measures and the details of administration and of field work should be demonstrated to the student. Lantern slides and mental health exhibits should be utilized. The student should observe the application of mental tests; assist in the interpretation of results; be present at interviews with parents, teachers, social workers and at case conferences; should be trained in the simpler forms of psychometry; should see the application of psycho-therapeutic measures; should come to appreciate the functions of the psychiatric social worker; and should assist in filling out the various kinds of blanks for commitment to institutional supervision.

These are all subjects which even the *general practitioner* of medicine may be called to advise upon as a representative of scientific thought in the community; but many psychiatrists are not adequately equipped to meet these various demands from educational, judicial, industrial and social quarters; and unless we bring this special viewpoint and this particular body of knowledge to our medical students, in rudimentary form at least, our shortage of specialists in social psychiatry will continue to hamper the mental hygiene movement. We now have sufficiently perfected

technique and enough psychological instruments of precision to render possible valuable and practical measures in the field of educational adjustment, reeducation, and child guidance. We lack, however, a sufficient number of trained workers to carry on the program of diagnosis and treatment.

Before closing I wish to indicate the significance of the institution for problem children as a field for psychiatric research, and as a laboratory for the development of methods of reeducation and mental adjustment. Certain organizations should envision the possibilities for really constructive social work through such a venture. Fellowships should be established; judges and probation officers should be acquainted with such projects; educational officials should realize the contributions that may be forthcoming from intensive studies of juveniles within such institutions and what such research may have to contribute to the training of normal children. Most work of this sort heretofore has been largely given over to diagnosing and classifying; in pre-institutional agencies that deal with conduct cases we find about the same approach. What we now need is treatment programs, as it is through the results of treatment under control that certain causes will be demonstrated. In the modern treatment of a neurosis or psycho-neurosis in an adult the various mechanisms which are responsible for the symptoms are revealed; it is during treatment of a conduct disorder in a child that all the causative factors will be uncovered; they will not all be evident at the time of an initial study of the case, such as that made by a pre-institutional agency, no matter how complete in the ordinary sense of the term such an examination may be. This is why the institution for problem children offers peculiar facilities for exploration into the realm of *cause* through the opportunity for prolonged contact with *effect*, and the chance to "see the wheels go round" not for a few hours at stated times as is true where the child must be studied outside an institution, but for twenty-four hours a day, month after month, with more or less complete control of material and with a chance to alter the environment, including human contacts and attitudes, more promptly and to shift the focus of the treatment machinery more easily than is ever possible under the uncontrolled and often unrelated home or community situations. We have in preparation a considerable

group of conduct disorder cases that exhibit in clear-cut fashion the same mental mechanisms encountered in the analysis of adult psycho-neurotics. We find the mechanisms of escape, identification, projection, and conversion, the phenomena of transference, compensatory attitudes of great variety, and children whose unusual behavior or actual delinquency is definitely the result of mental conflict dependent upon masochistic or homosexual trends or hinging about family situations, the understanding of which is possible only in terms of parental fixations, narcissistic drives and regressive phenomena in general. We find it interesting to note the results of treatment of these juveniles through educational adjustment, the guided evolution of sublimational interests and activities, selection of group contacts and the supplying of impersonal atmosphere, and, not least, the direct therapeutic conference, resulting in the discharge of emotional conflict after the manner of any well-conducted analysis, modified of course to fit the individual child.

We find many of these juveniles responding promptly to the therapeutic conversation; sometimes three or four conferences will bring about a remarkable change. We need, however, more guidance of the adults who constitute the child's human contacts either as helps or handicaps. We feel that with so-called problem children the same truth holds as with psycho-neurotic adults, namely, that therapeutic measures are often the means of revealing the underlying conflicts responsible for the conduct disorder and through them only may the way often be opened to a complete diagnosis and a successful reeducation and adjustment. I speak along this particular line because it has to do with the applications of the newer psychiatry, and it is in the special province of Social Psychiatry as a specialty that the newer formulations are being widely tested and further developed and clarified. We touch in the child guidance movement practically every phase of Social Psychiatry, and the plea for an understanding of mental mechanisms and emotional conflicts as essential to an interpretation of conduct disorder is emphatic. The demands upon this group of special workers from a number of quarters are dragging psychiatry along faster than it has learned the paths, and it behooves medical education to look to its landmarks and to sense more clearly what the next decade will demand of its psychiatrists and to take steps toward meeting in a measure this certain demand.

STATE ADMINISTRATIVE PROBLEMS IN THE CARE OF MENTAL DEFECTIVES.*

By SANGER BROWN 2D, M. D.,

Chairman, New York State Commission for Mental Defectives.

Society has been slow in adopting economic, humane and practical ways of caring for those of its members who are mentally afflicted or disordered. But while it may seem to us that man has been slow in recognizing that these afflicted people should be scientifically treated and properly housed and clothed, we must remember that man has been a civilized being only since yesterday, so to speak, if we consider the entire span of his existence. And so, in view of the tremendous progress in the field of mental hygiene during the last century, there is reason to believe that the insane, the feeble minded, the epileptic and other mental cases will be cared for in a better way in the future than in the past.

However, these ideals have not been reached as yet. In the care of mental defectives, in every state in the union, we are still a long way from adopting a comprehensive program.

The care of mental defectives in the United States had its start in a very limited way in a small institution in Albany, N. Y., in 1851. In 1848, a state institution for mental defectives was started in South Boston, Mass., and in 1854, the Albany institution was transferred to Syracuse, N. Y. Gradually other institutions of various types were built throughout the country. These were local efforts, however, and did not constitute a state-wide, much less a nation-wide, undertaking.

The care of mental defectives as a state-wide proposition, while instituted in some states, is far behind the care of the insane. There are a number of reasons for this: One is that mental defectives are less disturbing in the community and so the legislature is not forced to make provisions for them. Then, too, no one understood the extent of mental defectiveness thoroughly until after more refined diagnostic methods, including the Binet-Simon tests, came into use.

*Read by title at the eighty-first annual meeting of The American Psychiatric Association, Richmond, Virginia, May 12, 13, 14, 15, 1925.

Beginning as a community proposition, then, we have now come to the point where the care of mental defectives is recognized as a state problem. More and more states are taking it up. Inquiries are received from time to time from state legislators, civil authorities and welfare agencies as to how to work out this problem of state care. Very often they contemplate half-way measures or money-saving expedients. It is, of course, most important that the original plans be comprehensive and practical; hence certain general features of a state-wide problem are discussed at this time.

NUMBER OF MENTAL DEFECTIVES.

What is the number of mental defectives in the community? No one knows definitely, but various estimates place the total at about the same as that of the insane. The State Hospital Commission of New York State reports 45,853 insane in institutions, January 1, 1925. A number of estimates have placed the number of mental defectives in New York State at 50,000. This figure gives the percentage of mental defectives in the population at five per thousand.

Of course, higher estimates have been made. For example, in the city schools of New York City it has been estimated that there are 25,000 mental defectives. This would make the total in the state, in the schools alone, 47,000. When we add to this the low grade feeble minded at home and the adult feeble minded in the community, we see that the total will go far above 50,000. In the state of Massachusetts with a population of 3,693,310, a total of 60,000 mental defectives has been estimated, or 16 per thousand. Therefore, the estimate of five per thousand is probably a conservative estimate.

How many of these feeble minded should be in institutions? Certainly not all of them, as the subject of mental defect is now regarded by society. In New York State it has been thought that one out of five mental defectives requires institutional care, thus making a need of 10,000 beds. This estimate has been arrived at in a number of ways, particularly by estimating the number of applications for admissions in districts of known population. The figure cannot be accurate, but the proportion of one out of five requiring institutional care may form a working basis.

TYPES OF INSTITUTIONS.

Various types of institutions are in use for the care of mental defectives. One type is a separate institution for the chronic group—cripples and infirm. Another is the farm colony for working adults. A third is the institution for trainable children of school age. A fourth is an institution for the segregation of women of child-bearing period.

All of these special institutions have their good points, but most of them have their drawbacks. The institution for crippled and infirm makes no provision for trainable types nor for the higher grade custodial types. Again, the farm colony has its limitations because low grade cases cannot be cared for there. An institution which has as its ideal the training of the higher grade children of school age only, may accomplish very useful things in the community, but its ends are limited because it is obliged to exclude many cases needing institutional care. Some criticism may be made of most of the other special institutions.

Considering the needs of the state as a whole, therefore, it is evident that the institution where all types are admitted—namely, the infirm, the school group and the adult group—is the one which best meets the needs of the state. It is only in this way that the entire community is served. Moreover, such an institution forms a complete unit. The higher grade males do the farm work of the institution, and the higher grade females do the industrial work and also give much-needed assistance in the care of the crippled and infirm. An institution organized on this basis embraces all the features of the special institution and it is without its weaknesses. It has a school for trainable cases, it can establish farm colonies to any extent desired, it has its custodial group for adults who need continuous supervision. Moreover, such an institution forms a center in the community from which cases may be paroled if desired.

SIZE OF THE INSTITUTION.

What should be the size of the institution? Should it accommodate 500 or 5000 inmates? It is now generally accepted that the large institutions afford less individual care of inmates than is desirable. While the objection to too large an institution is quite evident, there are also objections to one that is too small.

One objection to the small institution, say of 600 or less, is that the superintendent has to be administrator, physician and many other things, all at the same time. Such a small unit cannot support a complete staff, such as a group of physicians, pathologists and other personnel found in the larger institutions. A staff of a dozen or more assistants, as found in a large institution, is likely to introduce various new features from time to time which any superintendent by himself could not do. A large institution is less likely to get in a rut than a small one.

INSTITUTIONAL ADMINISTRATION.

The administration of a large institution of this kind entails much responsibility. Its activities are much wider than those of a special school for trainable cases or of a farm colony. The superintendent of such an institution should be a physician with a broad knowledge of the medical problems of mental defect, of its social problems and of the health problems of a large institution. He must be familiar with the psychiatric, the psychological and the educational aspects of this problem. The superintendent then can organize his staff of assistants, consisting of his medical officers, his psychological staff, his teachers, his social service staff and other personnel. It is very important that the right sort of individual be the administrative head of this institution, as upon him will depend the success of all the other departments and also the work carried on by physicians, psychologists, social workers and teachers.

Educational work in the broadest sense in an institution of this kind should be strongly emphasized and completely organized. The teaching of the institution should be organized as in a school. Then, too, designating these institutions as schools, rather than simply as custodial institutions, carries this implication. Head teachers and assistants are required, the training which is given being manual for the most part, in domestic work and industrial training, and only academic to such an extent as the children may require. Well constructed school buildings and industrial buildings are necessary; likewise, equipment, material and organized facilities in the industries of the institution itself should be available.

The institution, then, stands at the center of the problem in the care of mental defectives. In it all activities of care are embraced

and secondary activities depend upon it. It is a scientific center for research, it is a training center for personnel and it sets standards for training and care in the community. Without a well equipped institution, care of mental defectives as a state-wide problem is quite impossible.

There are a number of activities, however, which are extra-institutional, although directed by the institution. The parole of carefully selected cases, the placement of these at suitable work, their supervision and social control, is very important. This is directed by the social service department which works under the direction of the medical staff.

COLONIES.

Farm colonies for boys, connected with the institution have long been in use. Colonies for boys in industrial work in towns since 1906 and those for girls in domestic or industrial pursuits in towns since 1914 have been in operation at the Rome State School. This latter type of colony has not been very generally introduced as yet. In New York State, however, domestic and industrial colonies are being introduced at certain of the other institutions. There is reason to believe that these colonies will eventually become a part of any well organized state program. Anyone who has inspected them cannot but be impressed with their value. They facilitate parole, they are centers of social training for mental defectives, and whereas parole from the institution to the community often results in failure, parole to the community after colony training is more often successful. In fact the colony probably supplies the social training under a certain degree of supervision so vital to mental defectives.

Clinics, more or less directed by the state schools, operating for the benefit of public school children, children's courts and welfare organizations, have been established in a number of states. Clinics have been organized in various branches of medicine, such as clinics for tuberculosis, clinics for the diagnosis of heart disease, for the care of the teeth, and for other diseases. They are equally desirable for the care of mental defectives. They afford a diagnostic center where the child can receive a thorough survey, as a result of which recommendations for his future are made. In New York State these clinics have been in existence since August 16, 1919.

There are now 53 such clinics, some of which are manned by physicians from the state schools. Such clinics are in use in Massachusetts. It is through clinics that continued supervision in the community is given to cases who would otherwise have to be committed to institutions. This supervision is carried out by social workers connected with the clinic.

DEFECTIVE DELINQUENTS.

The problem of defective delinquents is a separate one in respect to institutional care. An institution of any size experiences the greatest difficulty in caring for this type unless special provisions are made. Experience shows now that separate institutions for defective delinquents are necessary and that the defective delinquents cannot be cared for in the ordinary state schools.

Such institutions must differ in some respects from other state schools because of the character of the inmates. However, these institutions should not be administered as prisons or reformatories. The institution should conform in respect to case study, personnel, and training of inmates, to the other state schools, with necessary modifications. It should receive defectives by transfer from prisons and reformatories, and also by direct commitment from the community, and it should receive the unruly cases from the other state schools. Such an institution removes delinquent defectives from the community and keeps them out of jails, reformatories and penitentiaries where they serve a short term, and repeat their offenses after release. Likewise, the value of such an institution to judges, lawyers and court officials in respect to a better understanding of some of the underlying causes of crime is of very great importance.

PUBLIC SCHOOL SYSTEM.

While institutional care and extra-institutional activities of the institution are a vital part of this program, the public schools are equally important in other ways. The schools afford the best opportunity for registering mental defectives. A survey of public schools is not difficult and reveals the number of cases requiring institutional care or other supervision. Much more will probably

be accomplished in the training of mental defectives in the public schools in the future than has been accomplished in the past. There are probably a number of reasons for slow progress of the special classes in public schools. It was not until quite recently that the higher types of mental defectives have been recognized as such. Moreover, both the physically and mentally handicapped children have been looked after in part by other than school authorities. For example, the blind, the deaf and the crippled children have to some extent been cared for by agencies other than the educational department, although assisted by the latter. Perhaps it is not unnatural that plans for mental defectives have been slow in maturing. However, the grave importance of the work has not been overlooked by those who have special charge of it in schools. Miss Elizabeth Farrell, who has charge of the ungraded classes in New York City, has undertaken this work with great energy and is one of its foremost leaders and exponents. However, in New York State with a school population of over two million children, among whom there are nearly forty thousand mental defectives, the ungraded classes accommodate but 9375.

As special teaching methods become better understood and the needs of a richer curriculum and of manual education are appreciated, the type of training which was begun for mental defectives will be used for a number of other children as well, especially for psychopathic children. It is interesting that the work of Seguin, as started in Paris among the schools for defectives in 1837, was the beginning not only of the special type of training which we give mental defectives to-day, but also—according to Pierre Janet—of the occupation therapy which has been made use of for nervous and mental patients both in and out of institutions. Any state program, therefore, should certainly include arrangements for special classes for mental defectives, special class teachers, provisions for the training of teachers, and equipment for their class rooms. In New York State, the law provides for a special class and special class teacher in any community where ten or more mental defectives are found. It has been difficult to enforce this law because of the expense involved. Therefore, a recent law has provided that the state assist the community in meeting the expense of the teachers' salaries.

LEGISLATIVE NEEDS.

Legislation is required to make this program possible, and to place the responsibility for it under one distinct department of state welfare.

This requires a mental deficiency law. Such a law should place the responsibility of the care of mental defectives under a governing commission, and should outline its duties and powers. The law should establish separate institutions for mental defectives and provide for the removal of defectives from county homes and other state institutions. It should designate the type of these institutions, their administrative policies, and also the procedure of admission and commitment.

In New York State previous to 1918, legal procedure relative to the care of mental defectives was in a chaotic state. In 1918 a Commission for Mental Defectives was created, and in 1919 a Mental Deficiency Law was put into practice. This law has worked out very well.

It perhaps is not vitally important whether such a commission, or commissioner, is directly responsible to the governor and the legislature, or whether this department is a division of a mental hygiene department. But it is an advantage for the director of such a commission to be one who is thoroughly familiar with the details of his department, and who has had sufficient institutional experience to know his subject thoroughly. In other words, direction by a specialist has distinct advantages over lay control. In this way the director knows the facts himself and is not obliged to get his advice from outside sources.

A summary of this program is as follows:

1. Institutions which admit all types of cases serve the community best. These should be administered by a medical superintendent with a staff of psychiatrists, psychologists, special teachers, social workers and trained personnel.
2. The institutions should function as educational and scientific centers and should develop various community activities such as colonies, supervision of parole cases, and the development of clinics for mental defectives in the community.
3. Separate institutions for defective delinquents.

4. Special ungraded classes in the public schools, directed by the department of education. Specially trained teachers, separate class rooms, and financial support are necessary for this work in the public schools.

5. A commission or a department under a mental hygiene department, to supervise and direct this program.

6. A mental deficiency law which makes these activities possible.

The above general program is suggested with the hope that when the various states take up this question of the care of mental defectives as a state-wide policy, they will adopt a broad, comprehensive program and avoid inadequate or half-way measures.



A PLEA FOR STANDARDIZED AND INTENSIVE TREATMENT OF THE NEUROSYPHILITIC AND PARETIC.*

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The object of this paper is not so much to impress others with one definite mode of treatment for these conditions as it is to plead for a systematic form of treatment, particularly in institutions, where intensive treatment in this class of cases has been woefully neglected for various reasons.

I particularly wish to show by the statistics of my own department of the city hospitals the results I have obtained in the last three years, by following faithfully and conscientiously the method to be described, in psychoses on a luetic basis, and paresis in its earlier or later stages.

In a questionnaire sent out by Dr. John R. Ross, Superintendent of the Dannemora State Hospital of New York, about two years ago, to approximately 200 hospitals (public and private) and from whom answers were received, only 35 per cent were giving anti-luetic treatment in one form or another, and very few of these were giving it intensively or systematically.

In the space of time above mentioned I have had 237 cases of all types of syphilis of the nervous system under intensive anti-luetic treatment. One hundred and fifty-five of these were paretics in various stages of the disease, some being in such advanced condition that death was daily expected. Forty-five, or 29 per cent, showed decided improvement after treatment. In 68 patients, or 43½ per cent, improvement was so negligible that I placed them in the unimproved columns, and 42, or 27 per cent, died. Better results were obtained with cases of neurosyphilis. Of a total of 34, 20, or 58 per cent, were markedly improved, 4, or 11¾ per cent, remained unimproved and 10, or 29 per cent, died.

* Read at a meeting of the visiting and hospital staff of the University Hospital, Baltimore, Md., December 8, 1924.

Among the psychoses associated with lues (or on the basis of a luetic infection), 12, or 25 per cent, of a total of 48 cases recovered. By this I mean that the blood Wassermann on two or more occasions remained negative and there was no indication whatsoever of cerebro-spinal involvement. Twenty, or $41\frac{2}{3}$ per cent, showed improvement. Sixteen, or $33\frac{1}{3}$ per cent, remained unimproved. None died.

Further on in this article I have tabulated, according to the series of treatments given, results obtained after each series.

Neo- and sulph-arsphenamine are used exclusively and given alternately, one series consisting of neo- and the next series of the sulph-arsphenamine for the following reasons: First, combined in the above manner they tend to stimulate each other to greater spirochaetocidal action. Second, reaction is materially lessened and there is definite reduction in the acute psychotic manifestation. Third, they are readily soluble in small quantities of distilled water. Fourth, the treatments as a whole are better borne by the patients and the untoward results are negligible.

The dosage of neo-salvarsan is from 0.4 to 0.9 gm. The patient, if a female, is started on 0.4 gm., if a male, on 0.6 gm. These doses are gradually increased until the maximum quantity of 0.9 gm. is reached. This latter dose is then continued for balance of treatment.

The sulph-arsphenamine is given intermuscularly, preferably, in the buttocks, the dosage gradually increased from 0.3 gm. to 0.6 gm.

In connection with the preparation of the neo- and sulph-arsphenamine and its solution in sterile distilled water, we have found a very simple way of accomplishing this, and at the same time lessening the chances of oxidation which is most likely to occur when it is exposed to the air. The head of the ampule containing the arsphenamine is filed off and about 3-5 c. c. of sterile distilled water instilled at once, through the needle of a Record or Luer syringe which holds 10 c. c. of fluid. The ampule is slowly shaken two or three times until the salvarsan is dissolved. Then the whole is drawn up into this syringe which is already one-half filled with sterile distilled water. The solution must be thoroughly dissolved and entirely clear of any particles before administration is attempted.

The solution of neo-salvarsan is given of course intravenously. Following this, the patient a half-hour or so later is prepared for spinal drainage; if the case is either one of cerebro-spinal syphilis or paresis. Three days later, and subsequently after each injection of the neo-arsphenamine, the patient is given 1 to $1\frac{1}{2}$ gr. of salicylate of mercury intramuscularly.

This treatment is continued for five successive weeks, after which the patient is given a rest of four weeks during which potassium iodide or sodium iodide is given by mouth.

Following the rest period the patient is then given five weekly injections of sulph-arsphenamine. No mercury injections are given, but a solution known as House Specific, which consists of mercury and K. I. in solution, is given daily by mouth.

Spinal drainage also stops because of the selective action of the sulph-arsphenamine on the brain tissues. It seems that this drug travels quicker to the nervous system than any other of the arsphenamines.

It has only been in recent years that spinal puncture has become general and attended by very few untoward results. I can remember when any medicine to be injected intravenously was attended by preparations equal almost to that of a major operation and spinal puncture was approached with fear and trembling. However, at the present time no such ideas are entertained and all students should be taught spinal puncture as well as intravenous injections.

In the last three years I have drained over 800 cases with no other bad results than headache or occasionally loss of consciousness.

The average amount taken from the spinal canal has been about 75 c. c., but recently I drained a paretic and obtained 210 c. c. of fluid. He showed no bad effects except to be slightly excited, talkative and restless, but the next day he was quiet and much improved. Spinal drainage also helps the acutely maniacal types of paretics in that it lessens pressure irritation with resultant amelioration in symptoms.

There is very little danger to the neurosyphilitic by this method of treatment and the theory of this procedure as you know is to remove the fluid from the spinal canal, then by osmosis and diffusion through the tissues and possibly the choroid plexus, new fluid from the salvarsanized blood stream takes its place and in this

way the central nervous system is subjected to a bath of this medicated fluid.

Recent experiments by Drs. Leon H. Cornwall and C. M. Meyers in their clinical and biochemical studies of neurosyphilis would tend to show the presence of arsenic in the spinal fluid 72 hours after treatment with silver arsphenamine in an average quantity of over 14-17 mg. per cent in central nervous system lues, and about 4-9 mg. per cent in paretics, which in my opinion tends to strengthen the arguments made for intensive treatment of these conditions as suggested.

Several Wassermann tests are made of both blood and spinal fluid during the intensive treatment. I found about 30 per cent of all paretics had developed negative blood Wassermanns after three or four treatments. Forty-five per cent have shown marked reduction in the tests. There has been, however, no material reduction in the Wassermann of the spinal fluid in any of the cases.

PARESIS.

Series	Rec.	Imp. Per cent	Unimp. Per cent	Died Per cent	Total
Less than					
1 series.....	1 or 12½	7 or 87½	8
1.....	8 or 16	28 or 56	14 or 28	50
2.....	11 or 29½	15 or 40½	11 or 29½	37
3.....	9 or 69	4 or 30½	.....	13
4.....	7 or 25½	14 or 51½	6 or 22	27
5.....	5 or 35½	5 or 25½	4 or 28½	14
6.....	5 or 83½	1 or 16½	.....	6
Total....	45 or 29	68 or 43½	42 or 27	155

PSYCHOSIS WITH CEREBRO-SPINAL LUES.

Series	Rec.	Imp. Per cent	Unimp. Per cent	Died Per cent	Total
Less than					
1 series.....	1 or 33½	1 or 33½	3
1.....	6 or 50	.....	6 or 50	12
2.....	5 or 71	.....	2 or 28	7
3.....	3 or 50	2 or 33½	1 or 16½	6
4.....	3 or 75	1 or 25	.....	4
5.....	1 or 100	.....	.....	1
6.....	1 or 100	.....	.....	1
Total....	20 or 58½	4 or 11½	10 or 29	34

PSYCHOSIS ON A LUETIC BASIS.

Series Less than	Rec. Per cent	Imp. Per cent	Unimp. Per cent	Died	Total
1 series.....	.....	1 or 50	1 or 50	.....	2
1.....	.....	1 or 75	3 or 25	.....	12
2.....	2 or 22	2 or 22	5 or 55½	.....	9
3.....	.....	6 or 75	2 or 25	.....	8
4.....	8 or 53½	2 or 13½	5 or 33½	.....	15
5.....	2 or 100	.....	.....	.....	2
6.....	.....	.....	.....	.....	...
Total....	12 or 25	20 or 41½	16 or 33½	.....	48

In the cerebro-spinal lues more favorable action has been obtained in that about 43 per cent have shown negative blood Wassermann and approximately 15 per cent have shown negative spinal fluid Wassermann.

It is interesting to note how the number of cases that show improvement increases as the treatment progresses; for example, in paresis; following one series of 2-3 treatments, 8, or 13½ per cent, showed improvement, of a total of 58, 20, or 50 per cent, were unimproved and 21, or 36½ per cent, died. After 3 series, however, of a total of 13 cases under treatment, 9, or 69 per cent, showed decided improvement; and after 6 series of treatments of a total of 6 cases, 5, or 83½ per cent, showed marked improvement. Even better results were obtained with the other types of cases.

The first part of the treatment is frequently attended by loss of weight and possible accentuation of the symptoms. This changes later to a slow but steady improvement in the physical and mental condition. Even the syllabic stumbling and speech defect, so characteristic of the parietic, becomes markedly diminished and in some cases entirely disappears.

The patients' mental activity increases, they become more assertive and desirous of work, no task being too arduous for them. Even memory, insight and judgment show considerable improvement. In those cases where dementia and deterioration have become chronic the life of the patient has at least been prolonged and he generally shows the same amount of usefulness as the deteriorated schizophrenic of long standing.

There are numerous methods of treatment besides those mentioned that are at present advocated, but the results obtained in any method are not conclusive enough as yet to permit its being called the universal treatment of syphilis or its neuro-pathological complications. Most observers are agreed, however, that salvarsan in any form, to be a potent factor in the treatment of diseases, must be combined with mercury and the iodides.

I hold no brief for the method advocated by me, nor do I think it highly superior to others, but I do feel that this special form of treatment is the least dangerous of any I have yet read about, and which, from the gratifying results obtained, is at least worthy of trial, particularly in institutions for the insane. Nothing is more depressing to me than to see these untreated cases of paresis in the last stage of the disease, demented and deteriorated, untidy, living a vegetative existence, bedridden with numerous decubitus ulcers, a burden to themselves and others, when through early treatment intensively given, a considerable number could have been made useful, less troublesome and probably able to care for themselves up to the last.

The general practitioner will probably think it is impossible to adopt such a method of treatment in his office, particularly as spinal puncture is objectionable to a patient on account of the pain and discomfort attendant thereto. This is readily overcome. There is a small anæsthesia apparatus known as the Somneform apparatus, used largely by dentists as a mild and ready method of anæsthesia in extracting tooth roots, and for other minor operations. This is excellent for spinal puncture and in the office, with the help of an assistant, the patient can be anæsthetized in a few minutes with very little discomfort to him and spinal drainage instituted. The Somneform is best given in doses of 5 c. c. It is a combination of ethyl and methyl chloride.

It must be distinctly borne in mind, however, that this or any other form of treatment will not cure neurosyphilitic cases. All we can hope for is to stay the disease and allay the symptoms, since a certain amount of destruction of the nervous tissues will have occurred in the central nervous system and this can never be replaced. It is of course desirable that the disease be recognized as early as possible so that the most favorable results may be obtained by instituting the treatment intensively.

The following cases in brief culled from our list tend to illustrate results obtained after treatments were instituted. All these cases with exception of one have been discharged and are, as far as we can ascertain, doing well in their respective communities.

G. C. Age 46, admitted 6/8/22, discharged 7/2/23. Brought by police to hospital, excited, hallucinated, combative, conversation irrelevant, delusional, grandiose, and expansive ideas. Euphoric and erotic with slight speech defect. Memory defective for recent events, insight and judgment poor.

Physical examination essentially negative except for diffusely thickened blood vessels with B. P. 96/50.

Serology.—Blood Wassermann—positive. 100 per cent in P. and C.; C. S. F. Wassermann—positive. 100 per cent in 1, and $\frac{1}{2}$ c. c.; Mastic and Gold Reaction—atypical curve.

Diagnosis.—Paresis.

After four series of treatments patient's mental condition entirely cleared up. He reacted well to surroundings, all delusional tendencies disappeared. Memory for both recent and past events and insight and judgment became normally active. Patient was of considerable use on the wards and about institution. Serology remained the same following treatment. He was paroled January 21, 1923, and discharged July 2, 1923. He has reported regularly to the after-care mental hygiene clinic and according to last report is working and doing very satisfactorily.

K. E. F. Age 27, admitted 8/20/22, discharged 7/2/23. Brought by police, excited, noisy, clothes torn, restless. Physical examination revealed Argyle Robertson pupils; poor teeth and exaggerated K. K.

Serology.—Blood Wassermann—positive. 100 per cent in P. and C.; Sachs Georgi—positive 3 plus; C. S. F.—positive. 100 per cent in 1, $\frac{1}{2}$, $\frac{1}{4}$ c. c.; Noguchi—positive. Cell Count—180 c. m.; paretic curve on Gold and Mastic colloidal tests.

Patient for a number of months after commitment showed typical manic attacks. Showed psychomotor excitement with pressure of activity and flight of ideas. Had pronounced grandiose and expansive delusions. Destructive and combative so that he had to be kept in restraint constantly.

Diagnosis.—Paresis.

Gradual improvement occurred following anti-luetic treatment. After four series of treatment patient showed remarkable improvement. He gained about 50 pounds in weight. Became normally active both mentally and physically, except for slight emotional instability and tendency to temper tantrums which later cleared up. Two subsequent serological examinations were made with practically same findings as on his early admission. Since his discharge he has continued treatment up to present. Is working and doing very well.

E. B. Age 30, admitted 1/11/23, discharged 10/9/24. Brought by police. On admission was excited, talkative with stream of thought irrelevant and incoherent. Would not cooperate in preliminary examination. Physical examination revealed Argyll Robertson pupils; bad teeth; scars on right elbow and legs; diminished K. K.

Serology.—Blood Wassermann—positive. 100 per cent in P. and C.; Sachs Georgi—positive 4 plus; C. S. F.—positive. 100 per cent in all dilutions; Sachs Georgi C. S. F.—4 plus; Mastic Test—negative curve.

Following a few days' rest and treatment during which patient was combative and confused, he improved. He became quiet and cooperative, although stream of thought was limited. Evidenced speech defect and some euphoria.

Diagnosis.—Paresis.

After five series of treatment here he became entirely clear mentally with normal flight of ideas. He took part in several entertainments given by patients of hospital, and reacted normally in all directions. Speech defect disappeared. Memory, insight and judgment improved. He cooperated well and showed considerable usefulness on the ward, helping in care of patients. Since discharge has been working and doing very well.

W. B. Age 33, admitted 12/11/23. Is still a patient in hospital. Thirteen years ago noticed small sore on penis. Was treated three years with mercury. In last 10 years has been apparently all right. Last spring became weak and forgetful with tremorous speech. Following auto accident had sudden convulsion. Was removed to hospital in semi-comatose state, delirious, hallucinated, restless with some delusions, speech defect, mental clouding with extremely poor cerebration. Physical examination reveals evidence of speech defect; pupils sluggish to light; exaggerated K. K.; suggestive Romberg.

Serology.—Blood Wassermann—positive. 100 per cent in P. and C.; C. S. F. Wassermann—positive. 100 per cent in 1, $\frac{1}{2}$, $\frac{1}{4}$ c. c.; Paretic curve on Mastic test.

Diagnosis.—Paresis.

After several weeks' treatment condition began to show improvement and at present patient has had three series of treatment. Mentally has shown return to normal. Serology done after third series shows negative blood Wassermann, negative Noguchi and positive C. S. F. 100 per cent in all dilutions. Patient who is a musician and who has not been able to follow his vocation for last two years because of condition, has again become interested in his work and at a recent entertainment given by patients at hospital did exceedingly well in both classic as well as jazz numbers. He is eligible for parole and will probably be sent out the first of the year.

S. B. Age 27, admitted 11/15/20, discharged 3/7/21; readmitted 2/27/23, discharged 3/27/23. Brought to hospital by friends. Speech slow and showed tendency to syllabic stumbling. Disoriented and evidences confusion. Physical examination essentially negative except for exaggerated K. K.

Serology.—Blood Wassermann—positive. 100 per cent in P. and C.; C. S. F. Wassermann—positive. 100 per cent in 1, $\frac{1}{2}$, $\frac{1}{4}$ c. c.; Gold Sol. Curve—positive. Noguchi—positive. Cell Count—32.

Mentally has reacted very well throughout stay here. Has had two or three typical parietic convulsions shortly following admission.

Diagnosis.—Paresis.

After three series of treatment, improvement was very marked. Convulsions having entirely disappeared. He was discharged to the care of friends on their insistence. Readmitted on January 10, 1923. Discharged March 27, 1923. The reason for his commitment was the return of the convulsions with episodes of acute excitement and combativeness. During his stay in hospital has shown no abnormal mental tendencies. Serology of blood and C. S. F. was entirely negative during this admission. He was discharged to the care of his wife and later reported to after-care clinic apparently in very good condition.

A. H. Age 49, admitted 5/23/23, discharged 11/13/23. Brought to hospital by jail guards on order from court. Was stupid, apathetic and indifferent. Shows, however, partial orientation. Physical examination negative except for diminished K. K.

Serology.—Blood Wassermann—positive. 100 per cent in P. and C.; Sachs Georgi—positive 3 plus; C. S. F. Wassermann—positive. 100 per cent in 1 c. c. Negative in $\frac{1}{2}$ and $\frac{1}{4}$ c. c.; Sachs Georgi C. S. F.—negative; Colloidal Mastic Test—atypical negative curve.

Patient for a week or so following his admission was dull, stupid, exhibited slight delirium tendency with mental clouding and poor cerebration. Following anti-luetic treatment he has shown marked improvement in his condition.

Diagnosis.—Psychosis with cerebro-spinal syphilis.

After three series of treatment his blood Wassermann has become entirely negative. C. S. F. remained positive, however, 100 per cent in 1 c. c., negative in $\frac{1}{2}$ and $\frac{1}{4}$ c. c. His condition continued to improve throughout his stay here, and on November 13, 1923, he was declared markedly improved and discharged from the institution, sent back to jail to stand trial for some criminal act which he committed previous to admission.

S. P. Age 48, admitted 5/4/21, discharged 2/3/23. On admission evidenced much confusion, disorientation, definite hallucinations and mental clouding. Physical examination showed bilateral arcus senilis; pupils contracted and inactive to light and accommodation; reflexes exaggerated; marked sclerosis of vessel walls.

Serology.—Blood Wassermann—positive. 100 per cent in P. and C.; C. S. F. Wassermann—positive. 100 per cent in all dilutions.

For several weeks following admission patient evidenced confusion, delirium and easy excitability. Showed marked apprehensiveness with some delusions of persecution. Mentally is retarded as a result of marked clouding. Condition suggestive of a syphilitic meningitis.

Diagnosis.—Psychosis with cerebro-spinal lues.

Under intensive anti-luetic treatment patient has shown gradual and steady improvement. The confusion and mental retardation have entirely disappeared with stream of thought showing normal and coherent flight of ideas. Memory and orientation good. Patient has been of marked usefulness in the laundry and worked steadily for several months there. After five series of treatment was eligible for parole, consequently was paroled on November 16, 1922, and discharged February 3, 1923.

M. E. S. Age 40, admitted 5/18/23, paroled 10/30/24. Brought in by police to hospital. Seemed confused, timid with pronounced mental clouding. Physical examination showed poor teeth; large distended abdomen; varicosities; scars of healed ulcers on both legs; exaggerated K. K.

Serology.—Blood Wassermann—positive. 100 per cent in P. and negative in C.; Sachs Georgi—positive. C. S. F. Wassermann—negative. Sachs Georgi C. S. F.—negative. Colloidal Mastic Test—negative curve.

Patient had several attacks of acute excitement during her stay here at which time she was combative to others. She has also had several attacks of a delirious nature, during which she was stupid, confused with definite mental clouding and general weakness both mentally and physically. These have shown improvement under anti-luetic treatment.

Diagnosis.—Psychosis with cerebro-spinal syphilis.

After six years of treatment patient has shown entire return to normal mental activity. She has become useful on the ward, cooperative, has evidenced no tendency towards combativeness or sudden excitability. Is oriented with good memory and fair amount of insight and judgment.

Serology at this time shows following: Blood Wassermann—negative. Sachs Georgi—negative; C. S. F. Wassermann—positive. 90 per cent in 1, 80 per cent in $\frac{1}{2}$ and 0 in $\frac{1}{4}$; Cell Count—not increased; Colloidal Mastic Test—negative curve.

Was paroled on October 30, 1924. Has since reported to the after-care clinic and is apparently doing very nicely.

SUMMARY.

1. This paper is a plea to institute systematic and intensive treatment for the benefit of the neurosyphilitic or paretic, be the latter in the first or last stage.
2. That the method described is simple, devoid of practically all danger and has given very gratifying results, from the study of 237 cases of all types of neurosyphilitic conditions.
3. While the treatment is in no way superior to others it is at least worthy of trial, since it is quickly administered, and there are very few complications attendant upon its administration.
4. It is most desirable to recognize the disease in its earliest form so that intensive treatment may be instituted and the best results obtained.

5. The general practitioner may use this form of treatment in his office with the aid of Somneform anæsthesia.

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A Clinical and Biochemical Study of Neurosyphilis. By Leon H. Cornwall, M.D., and C. M. Meyers, Ph.D. American Journal of Syphilis. Vol. 7, No. 2, April 1923; Vol. 7, No. 4, Oct. 1923.



Proceedings of Societies

AMERICAN PSYCHIATRIC ASSOCIATION

PROCEEDINGS OF THE EIGHTY-FIRST ANNUAL MEETING.

RICHMOND, VA., TUESDAY, MAY 12, 1925.

FIRST SESSION.

The Association convened at 10.00 a. m., in the Auditorium of the Hotel Jefferson and was called to order by the President Dr. William A. White, of Washington, D. C.

THE PRESIDENT.—The Chair declares the eighty-first annual meeting of The American Psychiatric Association to be now in session.

I will ask the Reverend Beverley D. Tucker to open the meeting with prayer.

THE PRESIDENT.—*Members of the Association*, His Excellency the Governor of Virginia and a representative of his Honor the Mayor of Richmond have honored us with their presence and will say a few words of welcome.

I am going to ask Dr. Hall to introduce these two gentlemen to you.

DR. HALL.—*Mr. President, Members of the Association, Ladies and Gentlemen*, I count it a distinct honor to be permitted to present to this Association the Chairman *ex officio* of the General Hospital of the state of Virginia who never misses a meeting and who is the leader in the psychiatric work in this state, who is the head of one of the very greatest corporations in North America, the busiest man in the world, His Excellency E. Lee Trinkle, Governor of the Commonwealth of Virginia.

HON. E. LEE TRINKLE.—*Mr. President, Ladies and Gentlemen*, I want you to know that I shall occupy just a moment of your pressing time. It was very kind and thoughtful indeed of Dr. Hall, who was your representative in Virginia, to ask me to say just a few words of welcome.

Now I am very sorry that we have given you such a gloomy morning for the opening meeting, but the cloud always precedes the sunshine and I am very sure that the rest of the time will be more pleasant. I am quite sure that it is not necessary to express in general words the real feeling of appreciation that we have in Richmond and Virginia over the fact that you are holding this session in our capital city. Virginia always wel-

comes to her portals those who come to it, and I am sure that your purpose is to help those who may be in need. I really think that the spirit that is expressed in holding sessions of this kind is one that you are to be congratulated upon as you pass down the benefit of your experience to the suffering.

DR. HALL.—I now take pleasure in introducing a physician, Dr. W. Brownlee Foster, Director of the Department of Public Welfare of the city, who represents another physician, Dr. J. Fulmer Bright, the Mayor of Richmond.

Dr. Foster made a short address welcoming the Association to the City of Richmond.

THE PRESIDENT.—I wish to thank the Governor and the Mayor's representative for the consideration and kindness with which they have extended a formal welcome. I should like to tell them that we do not hold it against them that this is a rainy day.

The Chair announces that it has appointed Dr. Charles K. Pratt as the Publicity Representative of the Association for this meeting.

As the first order of business we will have the report of the Committee on Arrangements by Dr. Hall.

Dr. Hall announced the arrangements for the entertainment of the visiting ladies, the Negro Plantation Melodies by the Lorillard Chorus on this evening, the luncheon Wednesday at the Commonwealth Club, with the historical talk by Dr. Beverley D. Tucker, the Annual Address by Clarence Darrow, Esq., and the President's Reception Wednesday night, the trip to Williamsburg Thursday and the Round Table dinners Thursday night.

THE PRESIDENT.—You have heard this very excellent report of Dr. Hall's. I presume there is nothing to be done about it except to congratulate ourselves that so much has been provided for our entertainment.

The next thing in order, the report of the Committee on Program, will be postponed in the absence of its Chairman. I will call for the report of the Council, to be read by the Secretary, Dr. Bond.

REPORT OF THE COUNCIL.

Report of the Council Meeting held Monday evening, May 11, 1925.

Dr. White in the Chair.

Present: Doctors Ryon, Clark, Kline, Mitchell, Swint, Abbott, Barrett, Brown, Haviland, Guthrie, Harris, Forster, and Bond.

There were also present Dr. Brush and Dr. Burr.

The Secretary presented the name of Robert D. Gillespie, M. D., Glasgow, Scotland, as a candidate for Corresponding Membership.

On motion the Council recommended the election of this candidate.

The Secretary presented the following list of candidates who have applied for Fellowship:

Thomas E. Bamford, M. D., Syracuse, N. Y.; Eugene N. Boudreau, M. D., Syracuse, N. Y.; Albert Brousseau, M. D., Quebec, Canada; Michael A. Burns, M. D., Philadelphia, Pa.; John D. Carr, M. D., Jamestown, N. D.; David Clark, M. D., Detroit, Mich.; Stanley Cobb, M. D., Ponkapoag, Mass.; Edgar O. Crossman, M. D., Manchester, N. H.; John Doyle, M. D., Rochester, Minn.; Marjorie Fulstow, M. D., Boston, Mass.; Sherman F. Gilpin, M. D., Philadelphia, Pa.; H. B. Hannah, M. D., Minneapolis, Minn.; Emmett F. Hootor, M. D., Nevada, Mo.; Nolan D. C. Lewis, M. D., Washington, D. C.; Harry H. McClellan, M. D., Dayton, Ohio; E. Bosworth McCreedy, M. D., Pittsburgh, Pa.; John P. H. Murphy, M. D., Washington, D. C.; Sante Naccarati, M. D., New York, N. Y.; Newdigate Moreland Owensby, M. D., Atlanta, Ga.; Harry Parker, M. D., Rochester, Minn.; Franklin H. Perkins, M. D., Lancaster, Mass.; T. J. Perkins, M. D., Jackson, La.; Charles Edouard Sandoz, M. D., Cambridge, Mass.; Charles Henry Shumaker, M. D., St. Louis, Mo.; George Whitfield Stephens, M. D., Phoenix, Ariz.; Joseph F. Ward, M. D., Brooklyn, N. Y.; Francis E. Weatherby, M. D., Washington, D. C.; Herbert C. Woolley, M. D., Washington, D. C.

The Council recommended that these names be favorably received and laid upon the table for action next year.

The Secretary presented the following list of candidates proposed for Membership, who under the provisions of the constitution are eligible for election this year:

Frederick H. Allen, M. D., Philadelphia, Pa.; Emil Altman, M. D., New York, N. Y.; Ellet de Barry, M. D., Towson, Md.; John Bell, M. D., Amherst Co., Va.; Orland H. Blair, M. D., Clarks Summit Pa.; V. C. Branham, M. D., New York City, N. Y.; Glenn B. Carrigan, M. D., Columbia, S. C.; Noble R. Chambers, M. D., Syracuse, N. Y.; Harriet E. Chalmers, M. D., Marlboro, Mass.; Emanuel J. Cohn, M. D., Jacksonville, Ill.; Thaddeus C. Cooper, M. D., Pineville, La.; Harold O. Cozby, M. D., Binghampton, N. Y.; O. B. Darden, M. D., Richmond, Va.; George A. Davidson, M. D., Brandon, Manitoba; Lucile Dooley, M. D., Washington, D. C.; Harold B. Eaton, M. D., Boston, Mass.; Lonnie O. Farrar, M. D., Gardner, Mass.; Roy Dennis Halloran, M. D., Boston, Mass.; S. J. W. Horne, M. D., C. M., London, Canada; Percy S. Hamlin, M. D., Amherst Co., Va.; Lois Dean Hubbard, M. D., Washington, D. C.; H. L. Johnson, B. S., M. D., Phoenix, Ariz.; Roletta O. Jolly, M. D., Iowa City, Iowa; Frank A. Kay, M. D., Tuscaloosa, Ala.; Baldwin L. Keyes, M. D., Philadelphia, Pa.; Charles E. Laflour, M. D., North Grafton, Mass.; Morris C. Lippman, M. D., Poughkeepsie, N. Y.; Joseph Looney, M. D., Towson, Md.; Donald J. MacLean, M. D., Palmer, Mass.; John D. McCarthy, M. D., New York, N. Y.; Samuel O. Miller, M. D., Palmer, Mass.; Ward Winthrop Millias, Ph. B., M. D., Rome, N. Y.; Erwin H. Mudge, M. D., Hilmuth, N. Y.; Catherine N. Munro, M. D., Columbia, S. C.; Albert Grove Odell, M. D., Clifton Springs, N. Y.; Horace K. Richardson, M. D., Towson, Md.; Waldemar G. Richter, M. D., Collins, N. Y.; Perry G. Robertson, M. D., Newberry, Mich.; Paul A.

Royal, M. D., Lincoln, Neb.; Helen P. Langner, M. D., New York City, N. Y.; Morris I. Schlindlinger, M. D., Sykesville, Md.; Amy Nivison Stannard, M. D., Washington, D. C.; Harriet Elizabeth Twombly, M. D., Washington, D. C.; James J. Waygood, M. D., Philadelphia, Pa.; Louis Wender, M. D., New York City, N. Y.; David Cole Wilson, M. D., Clifton Springs, N. Y.; Frederick L. Wright, M. D., Palo Alto, Calif.; Ernest E. Hadley, M. D., Washington, D. C.; Harold Eliphalet Hoyt, M. D., New York City, N. Y.; Louis J. Karnosh, M. D., Cleveland, Ohio; Dorris Presson Kraus, M. D., Framingham, Mass.; LeRoy A. Luce, M. D., Boston, Mass.; Maxwell Eugene Macdonald, M. D., Boston, Mass.; I. L. Polozier, M. D., Detroit, Mich.; Maud Mary Rees, M. D., Sykesville, Md.; John J. Thompson, M. D., Boston, Mass.; James W. Vernon, M. D., Morgantown, N. C.

Motion was made and adopted to recommend to the Association the election of the candidates as read.

The Secretary read the following list of candidates for Fellowship whose applications were presented last year and laid over for final action this year:

Amos E. Barton, M. D., New York, N. Y.; B. I. Bell, M. D., Williamsburg, Va.; Byron Edward Biggs, M. D., St. Louis, Mo.; N. L. Blitzsten, M. D., Chicago, Ill.; Henry A. Bunker, Jr., M. D., New York, N. Y.; Frederic B. M. Cady, M. D., Cambridge, Mass.; Martin G. Carter, M. D., Los Angeles, Calif.; Malcolm Dexter Clayton, M. D., Covington, Ky.; Geo. Mitchell Eckel, M. D., Hot Springs National Park, Ark.; Frederic J. Farnall, M. D., Providence, R. I.; Wm. J. Hammond, M. D., Westwood, Mass.; Henry Richard Humphries, M. D., Mamaroneck, N. Y.; Augustus S. Knight, M. D., Gladstone, N. Y.; David Livingstone, M. D., Fort Steilacoom, Wash.; Elizabeth Spencer McCall, M. D., Bryn Mawr, Pa.; Hermon S. Major, M. D., Kansas City, Mo.; John A. P. Millet, M. D., Stockbridge, Mass.; George L. Mosby, M. D., Chicago, Ill.; Anita Mary Muhl, M. D., San Diego, Calif.; Thomas F. Neil, M. D., Augusta, Ga.; Roger Edmund Pinkerton, M. D., Cuyahoga Falls, Ohio; Charles E. Remy, M. D., Yankton, S. D.; Louis F. Ross, M. D., Richmond, Ind.; Walter F. Schaller, M. D., San Francisco, Calif.; Joseph F. Shanahan, M. D., Buffalo, N. Y.; Edwin Rogers Smith, M. D., Indianapolis, Ind.; Philip Smith, M. D., New York, N. Y.; Harry Stack Sullivan, M. D., Towson, Md.; Wm. H. Vorbau, M. D., Lima, Ohio; G. Leonard Harrington, Kansas City, Mo.

On motion the Council recommended the election of these candidates.

The Secretary read the following list of members who applied for transfer to Fellowship:

Alfred H. Ehrenclon, Earl V. Gray, Leland E. Hinsie, Hugh Carter Henry, Loren B. T. Johnson, Seymour DeW. Ludlum, J. A. Lussier, A. Marois, Charles A. McDonald, Reginald St. E. Murray, Horace V. Pike, Rose Pringle, George S. Sprague, Harry A. Steckel, Robert S. Stone, V. D. Thomas, Louis O. S. Wallace, J. C. Whitehorn, Lloyd H. Ziegler.

It was recommended to the Association that these transfers be made.

The Secretary next read a list of nine Fellows and seven Members who are three years in arrears for dues.

The Secretary explained that all such Fellows and Members had been sent three bills and three subsequent letters, but in no case had a reply been received.

The Council understood that these sixteen members were automatically dropped from the list of the Association.

The Secretary read a list of resignations received during the past year, they being as follows:

Dr. Benjamin O. Whitten, Dr. Louis B. Baldwin, Dr. Frank S. Bachelder, Dr. John R. Frank, Dr. Herbert Thornburgh, Dr. Clark Sherrill, Dr. W. J. Hammond.

Motion was made and adopted that the resignations submitted be accepted with regret.

The Secretary then presented the names of William Nelson, M.D., St. Louis, Mo., and Curran Pope, M.D., Louisville, Ky., as candidates for Fellowship this year under the special clause of the constitution.

Motion was made and adopted to recommend to the Association these candidates for Fellows at this meeting.

The application of a former member for re-instatement was received and the Secretary was instructed to inform this former member that he could be re-instated by payment of all dues to date.

The Secretary then read a letter from Dr. Haviland suggesting that it would be desirable to have a list of applicants printed in the JOURNAL OF PSYCHIATRY and circulated among the Council two months in advance of the annual meeting.

Motion was made and seconded to recommend this procedure to the Association.

An application for place on the program next year by the American Association for Medical Progress was received. The Council recommended that this request be referred to next year's Program Committee.

A request from the Voluntary Parenthood League was received suggesting that the Society pass a resolution approving its work. The Council recommended that this request be laid on the table.

The suggestion was received from the American Peace Award Committee that the Society adopt a suitable resolution approving its work. It was voted to lay this on the table.

The Secretary then read the following letters from Honorary Members elected last year—Dr. Pollock, Dr. Mott, Messrs. Beers and Elwood:

"STATE HOSPITAL COMMISSION, ALBANY, N. Y.

June 18, 1924.

"*Dr. C. Floyd Haviland, Former Secretary-Treasurer, Albany, N. Y.*

"DEAR DR. HAVILAND.—I thank you for your letter of June 17, officially notifying me of my election to Honorary Membership in The American Psychiatric Association.

"I am pleased to accept this honor, first, because of the distinguished personnel of the membership of the Association, and second, because of the importance of the work that the Association is doing. Although an Honorary Member, I hope to be able to contribute something toward the accomplishment of the purposes of the Association.

"I wish to thank you personally and the other members of the Council for the great honor conferred upon me.

"Very sincerely yours,

"HORATIO M. POLLOCK."

"LONDON, June 27, 1924.

"*C. Floyd Haviland, Esq., M. D., Drawer 18, Capitol Station, Albany, N. Y.*

"MY DEAR DR. HAVILAND.—I beg to acknowledge receipt of your letter of June 17, announcing that I had been elected an Honorary Member of The American Psychiatric Association at the annual meeting of the Association held June 3-6, 1924, at Atlantic City, N. J.

"I desire to express my deep sense of appreciation of this honor, and to assure you that it is a great satisfaction to me to know that my work is well-known and thoroughly appreciated in the States.

"Should I visit America at the time the Association meets, I should esteem it an honour to participate in the scientific programme of your Association, which numbers among its Fellows and Members so many distinguished psychiatrists. I observe that my friend Dr. Salmon is President, and my friend Dr. White of Washington, Vice-President, both of whom have done so much to advance our knowledge of Psychiatry.

"Thanking you again very much for writing to me announcing my Honorary Membership, and with every assurance of my high respect and esteem, I remain

"Yours sincerely,

"FREDERICK W. MOTT."

"NATIONAL COMMITTEE FOR MENTAL HYGIENE,

"NEW YORK, N. Y., June 19, 1924.

"*Dr. C. Floyd Haviland, Former Secretary-Treasurer, Albany, N. Y.*

"DEAR DR. HAVILAND.—Your letter of June 17, in which you inform me that I was elected an Honorary Member of The American Psychiatric Association at the meeting held at Atlantic City, N. J., June 3-6, 1924, brings to me an honor which I deeply appreciate. For me, a layman, to receive this honor at the hands of a group of physicians, in recognition of work done in the field of mental hygiene, greatly adds to the honor conferred upon me.

"In accepting this honor, may I, through you, thank the members of The American Psychiatric Association—the historic forerunner of the newer form of organization with which it has been my privilege to be identified.

"With kind regards to you, personally, who have done so much to further mental hygiene work, both state and national, believe me

"Sincerely yours,

"CLIFFORD W. BEERS."

"NATIONAL BOARD OF MEDICAL EXAMINERS,

"PHILADELPHIA, PA., June 19, 1924.

"Hon. C. Floyd Haviland, Former Secretary-Treasurer, The Capitol, Albany, N. Y.

"MY DEAR DR. HAVILAND.—Your letter received this morning officially notifying me of my election to Honorary Membership in The American Psychiatric Association at its meeting held June 3-6 in Atlantic City.

"I wish to say that I greatly appreciate this honor and it will afford me great pleasure if I can in any way be of service to the Association in the future.

"I wish to add a personal word of gratitude to you for the support which you must have given this election.

"With very kind personal regards to you, I am

"Sincerely yours,

"EVERETT S. ELWOOD."

Dr. Harris presented a report as Chairman of the Committee on Sale of Institutional Care of the Insane, total receipts being \$69.57, net receipts \$34.77. A check for the latter amount was handed to the Treasurer with the necessary vouchers.

The Council then adjourned.

THE PRESIDENT.—You have heard the report of the Council. There seems to be one feature of that report that requires the action of the Association. Names of candidates for membership to be printed in the JOURNAL two months before the annual meeting. The members of the Council may be communicated with also by letter in order that everyone in the Association will have an opportunity to carefully consider all candidates for membership. Is there anything to be said on that question by anybody?

It was moved that the recommendation regarding publishing of candidates' names be adopted. The motion was seconded and carried.

THE PRESIDENT.—Dr. Bond will now read the Secretary's and Treasurer's Reports.

REPORT OF SECRETARY, 1925.

The following is a statement of membership of The American Psychiatric Association as of April 30, 1925:

HONORARY MEMBERS.

Former number	12
Elected	4
	<hr/>
Total	16
Died	1
	<hr/>
Present number	15

LIFE MEMBERS.

Former number	57
Fellows to Life Members	2
Total	59
Died	2
Present number	57

CORRESPONDING MEMBERS.

Former number	1
Present number	1

FELLOWS.

Former number	780
Members to Fellows	34
Elected	60
Reinstated	1
Total	875
Fellows to Life Members	2
Resigned	5
Dropped	19
Died	7
Total	33
Present number	842

MEMBERS.

Former number	280
Elected	60
Total	340
Members to Fellows	34
Resigned	0
Dropped	9
Died	1
Total	44
Present number	296

TOTAL MEMBERSHIP.

Honorary members	15
Life members	57
Corresponding members	1
Fellows	842
Members	296

Grand Total Membership, April 30, 1925.....1211

Total membership shows a net gain of 80 as compared with the year ended May 31, 1924.

REPORT OF TREASURER—1924-1925.

June 1, 1924—Balance on deposit with Albany Trust Company.....\$1,045.23

RECEIPTS.

Dues:

Fellows	\$5,255.00
Members	1,046.55
Unknown	11.00

Total from Dues\$6,312.55

Miscellaneous:

Sale of "The Institutional Care of the Insane".....	48.36
Sale of gummed lists of members.....	12.00
Interest	11.30

Total Miscellaneous Receipts\$ 71.66

Total Receipts\$6,384.21

Total Funds, including Balance last year.....\$7,429.44

DISBURSEMENTS.

1924

June 6 Ernest Beyer, printing 800 ballots new members.....	\$ 12.50
6 Debit through returned check (B. Angela Bober).....	8.00
10 Debit through two exchange items (.40 & .32).....	.72
12 Olive E. West, expenses to Atlantic City as stenographer.	45.36
Eleanor Rausch, expenses to Atlantic City as stenographer	44.39
C. Floyd Haviland, stenographers' hotel bill, Atlantic City	56.10
C. Floyd Haviland, Secretary-Treasurer, expenses to Atlantic City	75.35
C. Floyd Haviland, Dr. Barker's expenses to Atlantic City	11.60

1924

June 16	Honorarium, Dr. Lewellys F. Barker for annual address.	\$50.00
	Bausch & Lomb Optical Co., projecting lantern and screen	72.15
	Alfred Moore, services and use of moving picture machine, Atlantic City	50.00
	S. Philip Goodhart, expenses visiting Atlantic City to give paper by invitation.....	27.96
	Western Union Telegraph Co., telegrams during May....	4.03
	The Lord Baltimore Press, printing and mailing lists of members	494.41
	C. P. Brate, 500 letter-heads.....	7.25
July 2	Stamps, through Lewis E. Lawes.....	.75
Sept. 2	W. R. Dunton, Jr., expenses incurred by Committee on Occupational Therapy	11.00
	Lewellys F. Barker, expenses in visiting Atlantic City for annual address	12.81
	The Lord Baltimore Press, cost shipments "Inst. Care, etc."	2.26
	Postmaster, Albany, N. Y., stamps	4.00
16	Lenore Evans, clerical services, June, 1924.....	7.31
	Eleanor Rausch, stenographic services, June, July, August, September, 1924	110.00
	American Railway Express Co., express charges on box shipped to Atlantic City.....	2.72
18	Western Union Telegraph Co., telegrams.....	2.67
29	Stamps through W. E. Lang.....	.75
Oct. 15	Lord Baltimore Press.....	2.30
28	Stamps through Houghton-Mifflin.....	.75
	York Safe & Lock Co.....	25.00
	Pennsylvania Hospital	33.14
Nov. 5	Olive E. West, stenographer, 1924 meeting.....	100.00
	Eleanor Rausch, stenographer, 1924 meeting.....	100.00
20	The Johns Hopkins Press, T. V. No. 1.....	1,022.13
	Pennsylvania Hospital, bill-heads, envelopes.....	8.12
	Earl D. Bond, railroad fare to Albany.....	20.27
	Earl D. Bond, 1000 stamped envelopes.....	23.48
	Edith Long, stenographer, services October and November, 1924	30.00
	Eva Woolridge, stenographer, services October and November, 1924	30.00
26	Charges for Canadian Collections.....	.30
28	Stamps through Dr. Ripley.....	.50
	Charges for Canadian Collection.....	.15
Dec. 23	The Johns Hopkins Press, Vol. IV, No. 2.....	930.93
	Vol. 3, Nos. 3 and 4; Vol. 4, No. 1.....	2.63
	Charges for Canadian Collection.....	.15

1925

Jan. 15	Pennsylvania Hospital, tel. envel. express.....	\$15.25
	Earl D. Bond, 500 window stamped envelopes.....	11.75
Feb. 5	Stamps through J. D. Griffen, gummed list.....	.75
9	Stamps through C. M. Burdick, gummed list.....	.75
Mar. 4	Herbert Horton, printer, 500 printed letters.....	7.50
5	Pennsylvania Hospital, 200 two-cent stamps, 1000 stamped envelopes, printing envelopes, printing 900 bill-heads.	34.63
13	Herbert Horton, printer, 1200 preliminary programs, 1000 envelopes for programs.....	25.25
	Pennsylvania Hospital, 1100 stamps.....	11.00
16	Wenonah Bell, sending out programs.....	9.30
20	AMERICAN JOURNAL OF PSYCHIATRY, IV, No. 3, Johns Hopkins Press	931.16
Apr. 11	Edith Long, stenographic services December, January, February, March	60.00
	Eva Woolridge, stenographic services, December, January, February, March.....	60.00
	National Committee for Mental Hygiene subscription for statistics	250.00
21	Stamps for complete programs, Edith Long, U. S. P. O..	18.00
27	Lord Baltimore Press, 1325 annual lists and mailing....	486.42
28	Johns Hopkins Press, reprints Proceedings and extra JOURNALS	21.55
30	Bloomingdale Hospital, circular letter and questionnaires, printing	21.65
	E. D. Bond: R. R. fare Secretary and two stenographers to Richmond	32.94
	Herbert Horton, printer, 1800 complete programs, 1200 envelopes	154.75
Total Disbursements		\$5,596.34

SUMMARY.

Total Funds including Balance last year.....	\$7,429.44
Total Disbursements	5,596.34

May 9, 1925—Balance on deposit with the Market Street Title and Trust Company, Philadelphia.....\$1,833.10

Respectfully submitted,
EARL D. BOND, *Treasurer.*

THE PRESIDENT.—You have heard the report. Are there any comments? If not, the report will be accepted as read and referred to the Auditors.

The next Report is the Report of the editors of THE AMERICAN JOURNAL OF PSYCHIATRY, by Dr. Brush.

DR. BRUSH.—The JOURNAL has just completed its eighty-first volume, the number of pages being 792. There are the same difficulties as usual with tardy contributors and men who want to rewrite their articles in the proof. As evidence of the reality of this latter trouble, it has cost the JOURNAL this year \$141.75 for corrections made by authors after the articles were in type. Manuscripts should, as required by rule, be handed to the Secretary as soon as the paper is read in the condition the author wishes it to appear. If you will do this you will save the Association a considerable sum of money and also relieve the editor of a very considerable anxiety of mind. I submit a statement of receipts and expenses.

THE PRESIDENT.—I understand that this report is referred to the Auditors.

The Chairman wishes it announced that the Laboratory Session will be held in the Tea Room, which is on the Franklin Street side.

The Chairman would also like to announce that the Report of the Committee on Standards and Policies, inasmuch as the report is a very important one for the consideration of the Association, will probably be called for Wednesday afternoon.

Dr. Dunton wishes it announced that there will be a meeting of the Committee on Occupational Therapy immediately following this meeting.

The next thing on the program is the appointment of the Committee on Nominations. The Chair desires to appoint the following committee:

Dr. Albert M. Barrett, Chairman, Dr. James Forster of Whitby, Ontario, and Dr. Chapman of Towson, Md.

The Members of the Association will please stand while the Secretary reads the names of the deceased members.

The audience stood while the Secretary read the following names:

Samuel B. Lyon, New York, N. Y. Died May 12, 1924. Henry S. Whisman, San Francisco, Calif. Died May 15, 1924. George F. Bond, Yonkers, N. Y. Died June 27, 1924. Daniel F. Millspaugh, Paterson, N. J. Died June 27, 1924. Richard F. Gundry, Catonsville, Md. Died August 5, 1924. T. W. Evans, Alexandria, La. Died August 25, 1924. Lowell F. Wentworth, Boston, Mass. Died Sept. 10, 1924. Arthur W. Hurd, Los Angeles, Calif. Died November 19, 1924. Walter E. Fernald, Waverley, Mass. Died November 28, 1924. Albert Sydney Priddy, Lynchburg, Va. Died January 13, 1925. William Glassell Somerville, Memphis, Tenn. Died January 27, 1925. Richard G. Rows, England. Died January 28, 1925.

THE PRESIDENT.—The Association will take a recess for two or three minutes. On reassembling I will ask Dr. Haviland to please take the Chair.

After the recess, with the Vice-President in the Chair, the President delivered his address which was enthusiastically received.

DR. HAVILAND.—You have been privileged to hear a remarkable and admirable address. I cannot adequately characterize it. I am quite well

aware that any attempt to do so would fall far short of the mark. Nevertheless, I am going to ask Dr. Burr to attempt the task and express something of his opinion of this morning's address.

DR. BURR.—*Mr. President, Mr. Vice-President, Members and Guests of the Association*, I cannot tell you how much we have enjoyed this delightful address. Something you said, Mr. President, reminded me of an experience at the time our soldiers came home from the Spanish-American War. All Flint turned out to receive them. Everybody was anxious to do something, everybody wanted to help them. The sick and emaciated were gathered into ambulances and vehicles; I was there in the hope that I could be of service. A hack-man called out: "I want a doctor," and when I volunteered, said, "Oh, is that you Doc.?—I want a physician." Thus the "alienist" was at that time regarded as custodian merely. The attitude toward the present day psychiatrist is altogether different. Isn't it fortunate, friends of the Association, that the President's Address is not open to discussion, for who would dare among us, even if he disagreed with the views expressed, to cross swords with such an expert? The President has spoken of perfection, and there is abundant reason for the claim that there is nothing perfect in the world. From that sweeping generalization, however, I think we may justly take some exception. Presidential addresses before this Association have as a rule been perfectly adapted to the purpose in view. An outstanding illustration of this we have had this morning—an address clear in its presentation, in its subject matter thoughtful, stimulating and helpful, and perfect in its diction. I sincerely thank you, Mr. President, and I want to make a motion, Mr. Vice-President, that this organization express by a rising vote its appreciation of this admirable and scholarly address.

There was much applause as the audience rose to mark its appreciation.

DR. HAVILAND.—There are several very important points suggested by the President in his Address which call for more deliberate consideration than we can give at this time. A motion as to the course that should be pursued is in order.

DR. MITCHELL.—The suggestions contained in Dr. White's address deserve a studied survey of the possibilities that cannot be made available at this annual meeting. No action the Association could take at this session would meet the situation adequately. I would, therefore, submit the following resolution for consideration at this time:

"*Resolved*, That the recommendations contained in the President's address be referred to the Council for study and a decision, tending to the adoption by this Association of such measures as may be feasible to make them effective; That a formal report be made to the Association at the next annual meeting, to be preceded by a preliminary statement of the Council at a later meeting of this annual session."

Motion to adopt this resolution was made, seconded, and carried.

The President then resumed the Chair and upon motion the session adjourned until 2 p. m.

AFTERNOON SESSION—ADMINISTRATION.

The meeting was called to order by Dr. White, President, at 2.00 p. m., in the Auditorium. The following papers were presented:

"Buildings for the Tuberculous Insane," by Mr. T. B. Kidner, N. Y. (by invitation); discussed by Drs. Mitchell, Garvin, Abbott, Harris, Barrett, Mr. Kidner in closing. "Psychiatric Departments in General Hospitals," by Geo. K. Pratt, M. D., N. Y., N. Y.; discussed by Drs. Anderson, Smith, Dr. Pratt in closing. "What the Mental Hygiene Movement Has Meant in Missouri," by Malcolm A. Bliss, St. Louis, Mo.; discussed by Drs. Smith, Nelson, Carmichael. "Non-Medical Workers and the Mental Hospital," by H. C. Wooley, M. D., and R. W. Hall, M. D., Washington, D. C.; discussed by Dr. Anderson. "The Prevention of Frequent Changes in the Personnel of State Hospitals," by C. H. Anderson, M. D., Anna, Ill.; discussed by Drs. Harris, Abbot, Bliss, White, Bryan and Garvin, Dr. Anderson in closing.

The section then adjourned.

LABORATORY SUBJECTS.

The meeting was called to order by Dr. Haviland, Vice-President, at 2.00 p. m. in the Tea Room. The following papers were presented.

"The Adrenal Cortex and Blood Cholesterol in Patients with Dementia Præcox," by Charles E. Gibbs, M. D., N. Y., N. Y.; discussed by Dr. Gregg; Dr. Gibbs in closing. "The Inorganic Constituents of the Blood in Catatonic Patients," by J. M. Looney, M. D., Towson, Md.; discussed by Drs. Ludlum, Farr, E. W. Allen and Dr. Looney in closing. "Familial Preadolescent Mental Deterioration and Blindness: Histopathology of One Case," by J. P. Monroe, M. D., and A. E. Taft, M. D., Philadelphia, Pa. (By invitation. Read by Dr. Taft.) "Results Obtained by the Intensive Use of Bromides in Functional Psychoses," by W. W. Wright, M. D., Utica, N. Y.; discussed by Drs. Hill, Sprague, Wafer and Dr. Wright in closing. "Studies of Gastric Secretion

and Motility in Mental Patients," by C. B. Farr, M. D., C. W. Lueders, M. D. (by invitation), and E. D. Bond, M. D., Philadelphia, Pa. (Read by Dr. Farr.) "An Unusual Mental and Neuro-pathological Reaction to Metastatic Cerebral Carcinomatosis," by N. D. C. Lewis, M. D., Washington, D. C. (by invitation); discussed by Drs. Farr, Gibbs, and Dr. Lewis in closing.

The section then adjourned.

The following Fellows and Members registered and were in attendance during the whole or a part of the meeting:

ARKANSAS.

Kirk, C. C., M. D., Little Rock.

1

CANADA.

Anglin, James V., M. D., Medical Superintendent Provincial Hospital, Fairville, St. John County, New Brunswick.

Devlin, Francis E., M. D., Medical Superintendent St. Jean de Dieu, Gamelin, Quebec.

Farrar, C. B., M. D., Director Toronto Psychiatric Clinic, Toronto, Ontario.

Forster, James M., M. D., Superintendent Ontario Hospital, Whitby, Ontario.

Mitchell, Wm. T. B., M. D., Research Director Canadian Com. Mental Hygiene, Lecturer, Psychiatry, McGill University, Montreal, Quebec.

Porteous, Carlyle A., M. D., Medical Superintendent Verdun Protestant Hospital, P. O. Box 4019, Montreal, Quebec.

Roy, C. S., M. D., Medical Superintendent St. Michael Archange, Mastai, Quebec.

7

CONNECTICUT.

Ballou, Harry B., M. D., Assistant Superintendent Mansfield Training School and Hospital, Mansfield Depot.

Robertson, Frank Wade, M. D., President and Medical Superintendent Stamford Hall, Stamford, Conn.; 412 West End Ave., New York.

Walker, William H., M. D., Assistant Superintendent The Hartford Retreat, 400 Washington St., Hartford.

Whitney, Ray L., M. D., Associate Physician, Cromwell Hall, Cromwell.

Wilcox, Franklin S., M. D., Superintendent Norwich State Hospital, Norwich.

5

DISTRICT OF COLUMBIA.

Hickling, D. Percy, M. D., Psychiatrist-in-Chief, Gallinger Municipal Hospital, 1304 Rhode Island Ave., Washington.

Kolb, Lawrence, M. D., Surgeon, U. S. Public Health Service, Hygienic Laboratory, 25th & E Sts., N. W., Washington.

Noyes, Arthur P., M. D., First Assistant Physician, St. Elizabeth's Hospital, Washington.

O'Malley, Mary, M. D., Clinical Director St. Elizabeth's Hospital, Washington.

White Wm. A., M. D., Superintendent St. Elizabeth's Hospital, Washington.

5

DELAWARE.

Hancker, Wm. A., M. D., Medical Superintendent Delaware State Hospital, Farnhurst.

1

GEORGIA.

Allen, Edwin W., M. D., Assistant Physician Allen's Invalid Home, Milledgeville.

Allen, H. D., M. D., Superintendent Allen's Invalid Home, Milledgeville.

Baines, Mathew C., M. D., Medical Officer in Charge, U. S. Veterans' Hospital No. 62, Augusta.

Longino, L. P., M. D., Assistant Superintendent Georgia State Sanitarium, Milledgeville.

Sims, Frederick R., M. D., Clinical Director, U. S. Veterans' Hospital No. 62, Augusta.

Swint, Roger C., Superintendent Georgia State Sanitarium, Milledgeville.

Walker, N. P., M. D., Clinical Director, Georgia State Sanitarium, Milledgeville.

7

ILLINOIS.

Gahagan, H. J., M. D., Medical Director, Mercyville Sanitarium, Aurora, office, 1441 People's Gas Bldg., Chicago.

Hulbert, Harold S., M. D., 5 S. Wabash Ave., Chicago.

2

INDIANA.

Dodds, Samuel, M. D., Medical Superintendent Northern Indiana Hospital for Insane, Logansport.

Laughlin, Chas. E., M. D., Medical Superintendent Southern Indiana Hospital for the Insane, Evansville.

Smith, Samuel E., M. D., Provost Indiana University, 1008 Merchants Bank Bldg., Indianapolis.

3

IOWA.

Sprague, George S., M. D., First Assistant Physician and Assistant Professor of Psychiatry, Psychopathic Hospital, Iowa City.

1

KANSAS.

Carmichael, F. A., M. D., Superintendent, State Hospital, Osawatomie State Hospital, Osawatomie.

Menninger, Karl A., Medical Director, Menninger Sanitarium and Psychiatric Hospital, Mulvane Bldg., Topeka. 2

LOUISIANA.

Foster, R. H., M. D., Pathologist, Central Louisiana State Hospital, Pineville.

Miller, Charles S., M. D., Assistant Superintendent East Louisiana State Hospital, Jackson.

Thomas, John N., M. D., Superintendent, Central Louisiana State Hospital, Pineville. 3

MAINE.

Hedin, Carl J., M. D., Superintendent Bangor State Hospital, Bangor. Westcott, Clement P., M. D., 335 Brighton Ave., Portland. 2

MARYLAND.

Brush, Edward N., M. D., Superintendent Emeritus Sheppard and Enoch Pratt Hospital, Hamilton Road, Mt. Washington, Baltimore.

Chapman, Ross McC., M. D., Medical Superintendent, Sheppard and Enoch Pratt Hospital, Towson.

Clark, J. Clement, M. D., Superintendent, Springfield State Hospital, Sykesville.

Coggins, Jesse C., M. D., Medical Director, Laurel Sanitarium, Laurel.

Dunton, Wm. Rush, Jr., M. D., Medical Director, Harlem Lodge, Catonsville.

Gillis, Andrew C., M. D., 1033 N. Calvert St., Baltimore.

Herring, Arthur P., M. D., Commissioner Mental Hygiene, 330 N. Charles St., Baltimore.

Hill, Charles G., M. D., Physician-in-Chief Mount Hope Retreat, Baltimore. 2

Jones, Kenneth B., M. D., Superintendent District Training School, Washington, D. C., Annapolis Junction.

Keating, Frank W., M. D., Superintendent Rosewood State Training School, Owings Mills.

Oliver, John R., M. D., Chief Medical Officer and Alienist to the Supreme Bench of Baltimore, Latrobe Apts., Read and Charles Sts., Baltimore.

Pattrell, Arthur E., M. D., Assistant Superintendent Sheppard and Enoch Pratt Hospital, Towson. 3

Purdum, Harry D., M. D., Clinical Director, Springfield State Hospital, Sykesville.

Sargent, George F., M. D., Aigburth Manor Convalescing Home, Towson. 1

Smart, L. Gibbons, M. D., Towson.

Taneyhill, G. Lane, M. D., Associate in Neurology, Johns Hopkins University, 405 N. Charles St., Baltimore.

Wade, J. P., M. D., Medical Superintendent, Spring Grove State Hospital, Catonsville.

Winterode, Robert P., M. D., Superintendent Crownsville State Hospital, Waterbury P. O., Crownsville.

18

MASSACHUSETTS.

Abbot, E. Stanley, M. D., 29 Gloucester Street, Boston.

Bonner, C. A., Chief Executive Officer, Boston Psychopathic Hospital, Boston.

Bryan, Wm. A., M. D., Superintendent Worcester State Hospital Worcester.

Coriat, Isador H., M. D., 416 Marlborough St., Boston.

Evans, Albert, M. D., Secretary-Treasurer Hospital Trustees Association, 410 Marlborough St., Boston.

Evans, Miner H. A., M. D., Assistant Physician, Boston City Hospital, 496 Commonwealth Ave., Boston.

Ewerhardt, Paul J., M. D., 9 Shailer St., Brookline.

Gregg, Donald M., M. D., Superintendent Channing Sanitarium, Wellesley.

Healy, Wm., M. D., Director Judge Baker Foundation, 40 Court St., Boston.

Hodskins, Morgan B., M. D., Superintendent Monson State Hospital, Palmer.

Houston, John A., M. D., Superintendent Northampton State Hospital, Northampton.

Lang, Walter E., M. D., Superintendent Westborough State Hospital, Westborough.

Kline, George M., M. D., Commissioner Massachusetts Department of Mental Diseases, State House, Boston.

MacDonald, John B., M. D., Superintendent Danvers State Hospital, Hathorne.

May, James V., M. D., Superintendent Boston State Hospital, Boston

24. Solomon, H. C., M. D., Chief Therapeutic Research Boston Psychopathic Hospital, 270 Commonwealth Ave., Boston.

Trentzsch, Philip J., M. D., Boston Psychopathic Hospital, 74 Fenwood Road, Boston.

Wallace, George L., M. D., Superintendent Wrentham State School, Wrentham.

18

MICHIGAN.

Barrett, Albert M., M. D., Medical Director, State Psychopathic Hospital, University of Michigan, Ann Arbor.

Burr, C. B., M. D. (formerly Medical Director Oak Grove Hospital, Flint, Mich.), The Durant, Flint.

Mulder, J. D., M. D., Superintendent and Medical Director, Christian Psychopathic Hospital, Pyron Centre.

Ostrander, Herman, M. D., Medical Superintendent Kalamazoo State Hospital, Kalamazoo.

Smith, Groves Blake, M. D., Associate Neuropsychiatrist, Henry Ford Hospital, Detroit.

Wafer, Raymond F., M. D., Psychiatrist to Battle Creek Sanitarium, Battle Creek.

6

MINNESOTA.

Blanton, Smiley, M. D., Director Minneapolis Child Guidance Clinic, Assistant Professor of Psychiatry, University of Minnesota, Minneapolis.

1

MISSISSIPPI.

Mitchell, C. D., M. D., Superintendent State Hospital, Jackson.

1

MISSOURI.

Biggs, M. O., M. D., Superintendent State Hospital No. 1, Fulton.

Bliss, M. A., M. D., 301 Humboldt Bldg., St. Louis.

Brunner, Ethan E., M. D., Superintendent Missouri State Colony for Feeble-minded and Epileptic, Marshall.

Evans, Edwin Elgin, M. D., Assistant Physician, State Hospital No. 2, St. Joseph.

Parker, J. H., M. D., Superintendent State Hospital No. 2, St. Joseph.

5

NEBRASKA.

Charlton, George E., M. D., Superintendent Norfolk State Hospital, Norfolk.

1

NEW HAMPSHIRE.

Baker, Benjamin W., Superintendent Laconia State School, Laconia.

Dolloff, Charles H., M. D., Superintendent New Hampshire State Hospital, Concord.

2

NEW JERSEY.

Cotton, Henry A., M. D., Medical Director State Hospital, Trenton.

Curry, Marcus A., M. D., Superintendent State Hospital, Greystone Park, Morris Plains.

Englander, Charles, M. D., Pathologist, Essex County Hospital, Cedar Grove.

Funkhouser, Edgar B., M. D., First Assistant Physician, State Hospital, Trenton.

Hallowell, Madeleine A., M.D., Director Hallowell School of Adjustment, Ventnor and Summer Aves., Atlantic City.

King, George W., M.D., Medical Superintendent Hudson County Hospital for Insane, Secaucus.

Lane, Arthur G., M.D., Clinical Director, New Jersey State Hospital, Greystone Park.

Plant, James S., M.D., Director Essex County Juvenile Clinic, 467 High St., Newark.

Prout, Thomas P., M.D., Medical Director, Fair Oaks Sanitarium, Summit.

Smith, Henry G., M.D., First Assistant Physician, Essex County Hospital, Cedar Grove.

Weeks, David Fairchild, M.D., Medical Superintendent and Chief Executive Officer, New Jersey State Village for Epileptics, Skillman. 11

NEW YORK.

Amsden, George S., M.D., Director Psychopathic Department (Pavilion F) Albany Hospital, Albany.

Bingham, Anne T., M.D., Psychiatrist, Girls Lenia League, 2 Gramercy Park, New York City.

Brill, A. A., M.D., 15 W. 70th St., New York City.

Burdick, Chas. M., M.D., Medical Superintendent, Dannemora Hospital, Dannemora.

Brown, Sanger, II, M.D., Chairman New York State Committee for Mental Defectives, 173 E. 70th St., New York City.

Capron, Arthur J., M.D., Physician-in-Charge Glenmary Sanitarium, Oswego, Tioga County.

Chamberlain, H. E., M.D., Assistant Physician, Bloomingdale Hospital, White Plains.

Cobb, O. H., M.D., Superintendent Syracuse State School, Syracuse.

Collier, G. Kirby, M.D., President National Association Study of Epilepsy, 80 East Ave., Rochester.

Currie, Thomas J., M.D., First Assistant Physician, Willard State Hospital, Willard.

D'Alton, Clarence J., M.D., National Committee for Mental Hygiene, New York City.

Damon, LeGrand A., M.D., Senior Assistant Physician Craig Colony, Sonyea.

Eidson, Joseph P., M.D., Director Family Welfare Clinic, National Committee for Mental Hygiene, 122 E. 40th St., New York City.

Garvin, Wm. C., M.D., Superintendent Binghamton State Hospital, Binghamton.

Gibbs, Charles E., M.D., Associate in Internal Medicine Psychiatric Institute, Ward's Island, New York City.

Gibson, H. G., M.D., First Assistant Physician, Central Islip State Hospital, Central Islip.

Glueck, Bernard, M. D., 117 W. 58th St., New York City.

Gray, Earle V., M. D., Superintendent Gowanda State Homeopathic Hospital, Helmuth.

Haines, Thomas H., Director Division on Mental Deficiency, National Committee for Mental Hygiene, 370 Seventh Ave., New York City.

Harris, Isham G., M. D., Medical Superintendent Brooklyn State Hospital, Brooklyn.

Haviland, C. Floyd, M. D., Chairman New York State Hospital Commission, Albany.

Henry, George W., M. D., Senior Physician (Director Laboratory) Bloomingdale Hospital, White Plains.

Heyman, Marcus B., M. D., Superintendent Manhattan State Hospital, Ward's Island, New York City.

Hutchings, Richard H., M. D., Medical Superintendent Utica State Hospital, Utica.

Jamieson, Gerald R., M. D., Senior Assistant Physician Hudson River State Hospital, Poughkeepsie.

King, Robert, M. D., Pathologist Central Islip State Hospital, Central Islip.

Kirby, George H., M. D., Director Psychiatric Institute, Ward's Island, New York City.

Lamb, Robert B., M. D., Physician-in-Charge Chricton House, Harmon-on-Hudson.

Matthews, A. C., M. D., Senior Assistant Physician Kings Park State Hospital, Kings Park.

McCord, Clinton P., M. D., Albany Medical College, 48 Willette St., Albany.

McGaffin, Chas. G., M. D., Superintendent New York City Children's Hospital, Randall's Island, New York City.

Merriman, Willis E., M. D., First Assistant Hudson River State Hospital, Poughkeepsie.

Mills, George W. T., M. D., Medical Inspector, State Hospital Commission, 175 Fifth Ave., New York City.

Moore, Joseph W., M. D., First Assistant Physician Matteawan State Hospital, Beacon.

Obendorf, Clarence P., M. D., Adjunct Neurologist, Mt. Sinai Hospital, Mt. Sinai Hospital, 8 E. 54th St., New York City.

O'Neill, James M., M. D., Physician-in-Charge St. Vincent's Retreat, Harrison.

Parsons, Frederick W., M. D., Medical Superintendent Buffalo State Hospital, Buffalo.

Patterson, Christopher J., M. D., Physician-in-Charge, Marshall Sanitarium, Troy.

Patterson, Harold A., M. D., Pathologist Craig Colony for Epileptics, Sonyea.

Pollock, Horatio M., B. S., M. S., A. M., Ph. D., Director, Statistical Bureau New York State Hospital Commission, Albany.

Pratt, George K., M. D., Assistant Medical Director National Committee for Mental Hygiene, 370 Seventh Ave., New York City.

Ross, John R., M. D., Medical Superintendent Harlem Valley State Hospital, Wingdale.

Ryon, Walter G., M. D., Superintendent, Hudson River State Hospital, Poughkeepsie.

Scott, Augusta, M. D., 149 E. 40th St., New York City.

Shanahan, Wm. T., M. D., Superintendent Craig Colony for Epileptics, Sonyea.

Spaulding, Edith R., M. D., 418 W. 20th St., New York City.

Taddiken, Paul G., M. D., Superintendent, St. Lawrence State Hospital, Ogdensburg.

Thayer, Walter N., Jr., M. D., Superintendent New York State Institution for Defective Delinquents, Napanoch.

Truitt, Ralph P., M. D., Director Division on Prevention of Delinquency, National Commission for Mental Hygiene, 370 7th Ave., New York City.

Van De Mark, John L., M. D., First Assistant Physician, Rochester State Hospital, Rochester.

Wearne, Raymond G., M. D., Clinical Director, Central Islip State Hospital, Central Islip, Long Island.

Woodman, Robert C., M. D., Superintendent Middletown State Homeopathic Hospital, Middletown.

Wright, William W., M. D., Director of Clinical Psychiatry Utica State Hospital, Utica.

53

NORTH CAROLINA.

Anderson, Albert, M. D., Superintendent State Hospital, Raleigh.

McNairy, C. Banks, M. D., Superintendent, Caswell Training School, Kinston.

2

NORTH DAKOTA.

Guest, A. W., M. D., Superintendent North Dakota State Hospital for Insane, Box 476, Jamestown.

Wylie, A. R. T., M. D., Superintendent Institution for Feeble-Minded, Grafton.

2

OHIO.

Baber, E. Armitage, M. D., Superintendent Longview Hospital, Cincinnati.

Baehr, Edmund M., M. D., 19 Garfield Place, Cincinnati.

Clark, Charles H., M. D., Superintendent Lima State Hospital, Lima.

Cozad, H. Irving, M. D., Physician-in-Charge Cuyahoga Falls Sanitarium, Cuyahoga Falls.

Kineon, George Goodline, M. D., Superintendent Ohio State Hospital for Epileptics, Gallipolis.

Ratliff, Thomas A., M. D., Superintendent Grandview Hospital, 2700 Glenway Ave., Price Hill, Cincinnati.

Rogers, Chas. B., M. D., Medical Director Orchard Springs Sanitarium, R. R. No. 13, Dayton.

7

OKLAHOMA.

Adams, Felix M., M. D., Medical Superintendent, Eastern Oklahoma Hospital, Vinita.

Bagby, Earnest L., M. D., Superintendent Western Oklahoma Hospital, Supply.

Griffin, D. W., M. D., Superintendent, Central Okla. State Hospital, Normal.

3

PENNSYLVANIA.

Buckley, Albert C., M. D., Medical Superintendent, Friends' Hospital, Frankford, Philadelphia.

Bond, Earl D., M. D., Physician-in-Chief, Pennsylvania Hospital, Department for Mental and Nervous Diseases, 4401 Market St., Philadelphia.

Bowers, Walter G., M. D., Medical Superintendent, Schuylkill County Hospital for Mental Diseases, Schuylkill Haven.

Elwood, Everett S., B. S., Managing Director, National Board of Medical Examiners, 1600 Walnut St., Philadelphia.

Farr, Clifford B., M. D., Director of Laboratories, Pennsylvania Hospital, 4401 Market St., Philadelphia.

Fuller, Daniel H., M. D., Medical Director, Pennsylvania Hospital, Department for Mental and Nervous Diseases, 11 N. 49th St., Philadelphia.

Fuller, Earl Wm., M. D., Superintendent, Penhurst State School, Penhurst.

Gordon, Alfred, M. D., 1812 Spruce Street, Philadelphia.

Green, E. M., M. D., Superintendent, Harrisburg State Hospital, Harrisburg.

Hammers, James S., M. D., Superintendent Pittsburgh City Hospitals, Mayview.

Hill, Ralph L., M. D., Superintendent, Allegheny Country Home and Hospital for Insane, Woodville.

Hutchinson, Henry A., M. D., Physician and Superintendent, The Dixmont Hospital, Dixmont.

Jackson, J. Allen, M. D., Superintendent, Danville State Hospital, Danville.

Janjigian-Peterson, Jessie, M. D., Health Clinic, 1043 Wyoming Ave., Forty-Fort.

Klopp, Henry I., M. D., Superintendent and Physician-in-Chief, Allentown State Hospital, Allentown.

Ludlum, Seymour DeWitt, M. D., Professor Psychiatry, Post-Graduate U. of P., 1827 Pine St., Philadelphia.

Mitchell, H. W., M. D., Superintendent, Warren State Hospital, Warren.

Miller, S. Metz, M. D., Superintendent, Norristown State Hospital, Norristown.

Murdoch, J. Morehead, M. D., Superintendent, Polk State School, Polk.

Nairn, B. Ross, M. D., Med. Office Expert, U.S.V.B., 30 Sunshine Rd., Upper Darby.

Pike, Horace V., M. D., Director, Clinical Psychiatry, Danville State Hospital, Danville.

Rutherford, Thos. A., M. D., Superintendent, Hillside Hospital for Mental Diseases, Clarks Summit.

Sandy, William C., M. D., Director, Bureau of Mental Health, Pennsylvania Department of Welfare, 112 Market St., Harrisburg.

Seiwell, Harry S., M. D., Superintendent, Retreat Mental Hospital, Retreat.

Stick, Henry L., M. D., Commanding Officer, U. S. Veterans' Hospital No. 49, 24th and Gray's Ferry Road, Philadelphia.

Taft, Annie E., M. D., Neuropsychiatrist, Pennsylvania Hospital, 3601 Walnut St., Philadelphia.

Wheeler, Lucia A., M. D., Assistant Physician, State Hospital, Wernersville, 461 Harper Ave., Drexel Hill.

Wiley, Gordon F., M. D., Senior Assistant, Pennsylvania Hospital, Department for Mental and Nervous Diseases, 4401 Market St., Philadelphia.

28

RHODE ISLAND.

Harrington, Arthur H., M. D., Superintendent, State Hospital for Mental Diseases, Howard.

Ruggles, Arthur H., M. D., Superintendent, Butler Hospital, Providence.

2

SOUTH CAROLINA.

Beeler, James Moss, M. D., Director of Dept. for Mental Hygiene, South Carolina State Hospital, Columbia.

Horger, E. L., M. D., Medical Director, South Carolina State Hospital, Columbia.

Williams, C. F., M. D., Superintendent, South Carolina State Hospital, Columbia.

3

SOUTH DAKOTA.

Adams, George Sheldon, M. D., Superintendent, Yankton State Hospital, Yankton.

1

TENNESSEE.

Cocke, Edwin W., M. D., Superintendent, Western State Hospital, Bolivar.

I

TEXAS.

Bass, T. B., M. D., Superintendent, Abilene State Hospital, Abilene.

I

VERMONT.

Ripley, Horace G., M. D., Superintendent, Brattleboro Retreat, Brattleboro.

Stanley, Eugene A., Superintendent, Vermont State Hospital for the Insane, Waterbury.

2

VIRGINIA.

Alderman, E. H., M. D., Asst. Physician, Eastern State Hospital, Williamsburg.

Brown, G. W., M. D., Superintendent, Eastern State Hospital, Williamsburg.

De Jarnette, J. S., M. D., Superintendent, Western State Hospital, Staunton.

Drewry, Wm. F., M. D., City Manager and Director of Public Welfare, Petersburg.

Gayle, R. Finley, Jr., M. D., Associate in Neurology and Psychiatry, Medical College of Virginia; Neurologist, City Home, Richmond.

Henderson, Estelle H., M. D., Superintendent, Southwestern State Hospital, Marion.

Henry, Hugh Carter, M. D., Superintendent, Central State Hospital, Petersburg.

Price, Susan A., M. D., Assistant Physician, Eastern State Hospital, Williamsburg.

Tucker, Beverly R., M. D., Tucker Sanatorium, 2700 Monument Ave., Richmond.

9

WEST VIRGINIA.

Guthrie, L. V., M. D., Superintendent, Huntington State Hospital, Huntington.

I

WISCONSIN.

Beutler, W. F., M. D., Medical Superintendent, Milwaukee County Asylum for Mentally Diseased, Wauwatosa.

Young, A. F., M. D., Superintendent, Milwaukee Hospital for Insane, Wauwatosa.

2

Total 219

The following visitors and guests of the Association registered their names with the Secretary:

- Anderson, C. H., M. D., Managing Officer, Anna State Hospital, Anna, Ill.
Anglin, Mrs. J. V., St. John H. B.
Ashley, Glaister H., M. D., Denver, Col.
Atkinson, G. T., M. D., Member Board of Managers, Spring Grove State Hospital, Md.
Baines, Mrs. M. C., Augusta, Ga.
Baldwin, Ettienne, Visiting Teacher, New York City.
Barrett, Mrs. Albert M., Ann Arbor, Mich.
Bartemeier, Leo Henry, Baltimore, Md.
Bassoe, Peter, M. D., Rush Medical College, University of Chicago, Chicago, Ill.
Baughman, Mary B., M. D., Richmond, Va.
Beeler, Mrs. J. M., Columbia, S. C.
Bell, B. I., M. D., Eastern State Hospital, Williamsburg, Va.
Bell, J. H., M. D., Superintendent, Virginia State Colony for Epileptics and Feeble Minded, Colony, Va.
Bell, Mrs. J. H., Colony, Va.
Bentler, Mrs. W. F., Box B., Wauwatosa, Wis.
Blakeslee, M. O., M. D., Assistant Medical Superintendent, Michigan Home and Training School, Lapeer, Mich.
Bliss, Mrs. M. A., St. Louis, Mo.
Bond, Mrs. E. D., Philadelphia, Pa.
Bowers, Mrs. Walter G., Schuylkill Haven, Pa.
Brackin, H. B., M. D., State Hospital, Raleigh, N. C.
Branham, V. C., M. D., Psychiatrist, New York State Commission for Mental Defectives, New York City.
Brousseau, Albert, M. D., Medical Director, Hospital St. Michael Archange, Quebec, Villa de Tavannes, Mastai, Quebec.
Brush, Mrs. Edward N., Baltimore, Md.
Bruton, J. W., M. D., Superintendent, State Hospital, Nevada, Mo.
Buckley, Mrs. Albert, Philadelphia, Pa.
Bunker, H. A., Jr., M. D., Assistant Director, New York Psychiatric Institute, Ward's Island, New York City.
Burrow, Trigrant, M. D., Assistant, Phipps Psychiatric Clinic, Baltimore, Md.
Castner, Chas. W., M. D., Medical Superintendent, State Hospital, San Antonio, Texas.
Chapin, Chas. P., Board of Managers, Buffalo State Hospital, Buffalo, N. Y.
Clarke, Eric Kent, M. D., Associate Medical Director, Canada National Committee for Mental Hygiene, Toronto, Canada.
Clarke, Mrs. Susanna, Toronto, Canada.
Cocke, Mrs. Edwin W., Bolivar, Tenn.
Coghill, Harvie DeJ., Psychologist, Virginia Penitentiary, Richmond, Va.

- Cotton, Mrs. Henry, Trenton, N. J.
Currie, Mrs. Thos., Willard, N. Y.
Curry, Mrs. Marcus A., Greystone Park, N. J.
Damon, Mrs. L. A., Sonyea, N. Y.
Darden, O. B., M. D., Westbrook Sanitarium, Richmond, Va.
Darrow, Mr. and Mrs. Clarence, Chicago, Ill.
Davies, Stanley P., Executive Secretary, New York State Committee for Mental Hygiene, New York City.
Davis, Watson, Science Service, Washington, D. C.
Devlin, Mrs. F. E., Montreal, Quebec.
Dodds, Ella W., Logansport, Ind.
Drury, Mrs. W. F., Petersburg, Va.
Ellis, William J., Director, Division of Classification, Department of Institutions and Agencies, Trenton, N. J.
Evans, Mrs. E. E., St. Joseph, Mo.
Evans, James H., President, Board of Directors, Retreat Mental Hospital, Retreat, Pa.
Evans, Mrs. Miner H. A., Boston, Mass.
Farson, W. W., M. D., Superintendent State Hospital, Goldsboro, N. C.
Farmann, Mrs. Frank, Manager, Binghamton State Hospital, Oneida, N. Y.
Forster, Mrs. J. M., Whitby, Ontario, Canada.
French, Thomas M., M. D., Assistant Physician, Bloomingdale Hospital, White Plains, N. Y.
French, Ursula J., Bloomingdale Hospital, White Plains, N. Y.
Fry, George C., Boston, Mass.
Fryer, Emma T., Assistant, Newark St. School, Newark, N. J.
Fuller, Mrs. Daniel Hunt, Philadelphia, Pa.
Furbush, Edith M., Statistician, National Committee for Mental Hygiene, New York City, N. Y.
Gray, Mrs. Earle V., Helmuth, N. Y.
Green, Mrs. E. M., Harrisburg, Pa.
Groves, Edith L., Board of Education, Toronto, Canada.
Guthrie, Mrs. L. V., Matron, State Hospital, Huntington, W. Va.
Haines, Mrs. Thomas H., Montclair, N. J.
Hammers, Mrs. James S., Superintendent, Pittsburgh City Homes and Hospitals, Mayview, Pa.
Harman, K. E., Chairman, Board of Directors, Southwestern State Hospital, Marion, Va.
Harris, Mrs. W. Hall, Jr., Baltimore, Md.
Harman, Mrs. K. E., Puloski, Va.
Harrington, G. Leonard, M. D., Kansas City, Mo.
Haviland, Mrs. C. Floyd, Albany, N. Y.
Hedin, Mrs. Carl J., Bangor, Maine.
Henderson, Mrs. E., Marion, Va.
Henneyhempen, L. A., Richmond, Va.

- Henry, Mrs. H. C., Petersburg, Va.
Higgins, Frederick A., President, Harlem Valley State Hospital, Wingdale, N. Y.
Hill, Mrs. R. L., Woodville, Pa.
Hector, Emmett F., M. D., Superintendent, State Hospital No. 4, Farmington, Mo.
Houston, John A., Jr., Northampton, Mass.
Hutchinson, Mrs. Henry A., Dixmont, Pa.
Jackson, Mrs. J. Allen, Danville, Pa.
Jenkins, Miss Martha, Occupational Therapist, U. S. Veterans' Hospital No. 60, Oteen, N. C.
Jones, Basil B., Children's Memorial Clinic, Richmond, Va.
Kendall, Albert S., Boston, Mass.
Kidner, T. B., Institutional Secretary, National Tuberculosis Association, New York, N. Y.
Lancaster, R. V., D. D., Richmond, Va.
Lanbach, C. A., M. D., Pathologist, Norristown, Pa.
Lewis, Nolan D. C., M. D., Director of Laboratories, St. Elizabeth's Hospital, Washington, D. C.
Looney, Joseph M., M. D., Director, Biochemical Laboratory, Sheppard and Enoch Pratt Hospital, Towson, Md.
Ludlum, Mrs. Seymour DeWitt, Philadelphia, Pa.
McGarr, T. E., Treasurer, New York State Hospitals, Albany, N. Y.
Mastin, J. T., Commissioner of Public Welfare, State Board of Public Welfare of Virginia, Richmond, Va.
Matthews, Willard, Trustee, Hillside Hospital, Clark Summit, Pa.
Miller, Mrs. J. Clyde, Woodville, Pa.
Mills, Harriet May, State Hospital Commissioner of New York, Syracuse, N. Y.
Mitchell, Mrs. H. W., Warren, Pa.
Mogridge, George, M. D., Superintendent, Institution for Feeble Minded Children, Glenwood, Iowa.
Moosbrugger, Herman F., President Board of Managers, New Jersey State Village for Epileptics, Somersville, N. J.
Moore, Mrs. J. W., Beason, N. Y.
Nairn, Mrs. Daisy D., Upper Darby, Pa.
Nelson, Mrs. Wm., St. Louis, Mo.
Neudeck, Mrs. Gustav A., Providence, R. I.
Odell, Albert G., M. D., Neuropsychiatrist, Clifton Springs Sanitarium, Clifton Springs, N. Y.
O'Neill, Mrs. James, Harrison, New York.
Ostrander, Mrs. Herman, Kalamazoo, Mich.
Paine, W. A., M. D., Trustee, Hillside Hospital, Clarks Summit, Pa.
Parker, Gerald C., New York City.
Perkins, T. J., M. D., Superintendent, East Louisiana State Hospital, Jackson, La.

Perkins, Mrs. Amanda, Matron, East Louisiana State Hospital, Jackson, La.

Pike, Mrs. Horace V., Social Service Worker, State Hospital, Danville, Pa.

Preston, George H., M.D., Psychiatrist, Children's Memorial Clinic, Richmond, Va.

Praven, P. S., Washington, D. C.

Putney, L. L., M.D., Assistant Physician Western State Hospital, Staunton, Va.

Quinlan, Gertrude A., Psychiatric Social Worker, Children's Memorial Hospital, Richmond, Va.

Ragsdale, L. E., M.D., Superintendent, Tennessee Home for Feeble Minded, Nashville, Tenn.

Ragsdale, Mrs. L. E., Nashville, Tenn.

Rapp, Walter, Chairman Board Medfield State Hospital, Medfield, Mass.

Ransom, John E., Superintendent, Michael Reese Dispensary, Chicago, Ill.

Raynolds, Evelyn, M. D., House Medical Officer, Phipps Clinic, Baltimore, Md.

Richmond, Winifred, Psychologist, St. Elizabeth's Hospital, Washington, D. C.

Robertson, Mrs. Frank, New York, N. Y.

Ross, L. F., M.D., Medical Superintendent, Eastern Indiana Hospital for the Insane, Richmond, Ind.

Ross, Mrs. J. R., Pawling, N. Y.

Ray, Miss Juliette, Mastai, Quebec, Canada.

Rutherford, Mrs. T. A., Clarks Summit, Pa.

Sample, Gertrude, Occupational Director, U. S. Veterans' Hospital No. 60, Oteen, N. C.

Scoville, Mildred C., Commonwealth Fund, New York, N. Y.

Shanahan, Mrs. William T., Sonyea, N. Y.

Sheppern, Gay B., Director Children's Bureau, State Department Public Welfare of Virginia, Richmond, Va.

Slagle, Eleanor Clark, Director of Occupational Therapy, Albany, N. Y.

Stanley, Mrs. E. A., Waterbury, Vt.

Stanley, Taylor, Cincinnati, Ohio.

Stevens, Elmer A., Department of Mental Diseases, West Somerville, Mass.

Sullivan, Harry Stack, M.D., Assistant Physician and Psychologist, Sheppard and Enoch Pratt Hospital, Towson, Md.

Shaw, Arthur L., M.D., Secretary-Treasurer, National Association for the Study of Epilepsy, Utica, N. Y.

Sheehan, Robert F., M.D., Member Board of Managers, Harlem Valley State Hospital, New York.

Sye, H. C., M.D., Instructor in Psychiatry, Johns Hopkins Hospital, Baltimore, Md.

Trensch, Mrs. Philip J., Boston, Mass.
Thomas, Mrs. Jno. N., Matron, Central Louisiana State Hospital, Pineville, La.
Thomasson, Mary E., Visiting Teacher, Richmond, Va.
Valantine, Miss Dorothy, Psychiatric Social Workers, Children's Memorial Clinic, Richmond, Va.
Van DeMark, Mrs. Z. L., Rochester, N. Y.
Wafer, Mrs. R. F., Battle Creek, Mich.
Walker, Mrs. Charles, Hartford, Conn.
Waygood, James J., M. D., Assistant Physician, Pennsylvania Hospital for Mental and Nervous Diseases, Philadelphia, Pa.
Weher, Mrs. Jno. A., Hickory Withe, Tenn.
Whelpley, F. L., M. D., Clinical Director, State Hospital, Goldsboro, N. C.
White, A. G., and Landon, Knoxville, Tenn.
White, F. S., M. D., Superintendent, Wichita Falls State Hospital, Wichita Falls, Texas.
White, Mrs. Wm. A., Washington, D. C.
Whitney, Mrs. R. L., Cromwell, Conn.
Wilcox, Lucy, Norwich State Hospital, Norwich, Conn.
Willson, G. M., Assistant Psychologist, New Jersey State Psychiatric Clinic, Trenton, N. J.
Winterode, Mrs. R. P., Waterbury, Md.
Woodman, Mrs. Robert, Middletown, N. Y.
Young, Mrs. A. F., Wauwatosa, Wis.
Total visitors and guests, 155.
Total attendance, 374.

WEDNESDAY, MAY 13, 1925.

MORNING SESSION.

The Association was called to order by the President at 10.00 a. m.

The President announced a report of the Council, which was presented by the Secretary.

REPORT OF THE COUNCIL.

A meeting of the Council was held this morning at nine o'clock. There were present Doctors White, Haviland, Abbot, Barrett, Brown, Clark, Kirk, Kline, Ryon, Swint, Bond: Drs. Harris, Guthrie and Forster: Doctor Brush.

The Secretary placed the recommendations of the President's Address before the meeting. Doctors White, Kline, and Brush reported discussions with members of other societies. The question of cooperation with these societies was discussed by Dr. Abbot and Dr. Mitchell, the latter empha-

sizing the importance of early action. Dr. White said that apparently what was in the minds of those present was a Congress of autonomous societies. Dr. Harris suggested that the officers of this Society ask the officers of other societies for suggestions. Dr. Swint moved that the President appoint a committee to deal with the recommendations during the year. This motion was carried.

The Secretary was instructed to state that applications for membership must be presented in time for publication in *THE JOURNAL OF PSYCHIATRY* at least two months before any Annual Meeting to receive action at that meeting. The Council adjourned.

The report of the Council was duly adopted. The President appointed as a Committee on Reorganization the Vice-President, the Secretary and the Vice-President to be elected.

THE PRESIDENT.—Any comments? If not we will proceed with the next order of business which is the election of Members. You all have the printed slips on your chairs, and we will proceed as the names appear thereon:

First is the proposed list for Fellowship. These applicants have complied with all the requirements of the Association and are eligible for Fellowship.

It was moved that the Secretary be empowered to cast a ballot. Motion was seconded and carried.

THE PRESIDENT.—Next is the list of Members for election, including one Corresponding Member. Do I hear any comment?

DR. ABBOT.—I move that the list be accepted.

The motion was seconded and carried.

THE PRESIDENT.—Third is application for change of Members to Fellows. That can take the same course.

Motion was made that the list be accepted; seconded and carried.

THE PRESIDENT.—Is Dr. Solomon in the room? Will you make your report on the Program Committee?

DR. SOLOMON.—The Chairman of the Program Committee wishes to take this opportunity to thank the members of the committee for their aid in preparing the program, especially Dr. S. W. Hamilton, who was responsible for the Administrative Section of the program.

There is only one comment to be made, and that is that the men dealing with extra-institutional psychiatry are much more ready to contribute papers to the meeting than those whose full time is given to hospital work.

THE PRESIDENT.—The next business is the Report of the Nominating Committee.

DR. BARRETT.—I beg leave to report the following:

For President, Dr. C. Floyd Haviland of Albany, N. Y.

For Vice-President, Dr. George M. Kline, Boston, Mass.

For Secretary-Treasurer, Dr. Earl D. Bond, Philadelphia, Pa.

Councillor for one year. Dr. Adolf Meyer, Baltimore, Md.

Councillors for three years: Dr. William A. White of Washington, D. C.; C. F. Williams of Columbia, S. C.; S. T. Orton of Iowa City; and George W. Kirby of New York.

DR. BRUSH.—I move that the report be accepted as read, and the President be empowered to cast one ballot for these officers.

Motion seconded and carried.

THE PRESIDENT.—The President has cast the ballot and the Secretary informs me, after having read the returns, that the members as presented by the Nominating Committee are elected.

There is a short matter that should have come under the unfinished business and I will give the floor to Dr. Herring:

"WHEREAS: Dr. Henry Mills Hurd has just passed his eighty-second year and has been a member of this Association since 1879 and has always taken an active interest in the affairs of the Association and has by wise council and pleasing personality become endeared to every member:

"Therefore be it Recorded, That this Association at its eighty-first annual meeting expresses to Dr. Hurd its remembrance of his many years of active service in the field of psychiatric medicine and of the respect and esteem felt for him by his co-workers, and that the Secretary be instructed to wire this resolution to Dr. Hurd."

This resolution was adopted by a rising vote.

THE PRESIDENT.—The next thing on the program is the Report of the Auditors.

The Auditors not being ready, their report was deferred.

THE PRESIDENT.—Next is the Report of the Committee on Occupational Therapy, to be read by Dr. W. R. Dunton, Jr.

REPORT OF THE COMMITTEE ON OCCUPATIONAL THERAPY.

Mr. President and Members of The American Psychiatric Association:

The work of this committee has been limited to promoting and arranging the exhibit held in connection with this meeting. The exhibitors are:

Eastern State Hospital of Virginia, Allentown State Hospital, Norristown State Hospital, Mt. Sinai Hospital, Pennsylvania Hospital, Stamford Hall, Sheppard and Enoch Pratt Hospital, National Committee for Mental Hygiene, Department of Welfare of Pennsylvania, Association of Hospital Social Work.

Your committee desires to make a suggestion for future activities. It has been generally admitted that occupational therapy was first used for mental patients, and has been used for a longer time for this group than any other. Despite this, it is only recently that contributions of scientific value have been made by physicians charged with care of the mentally ill and

your committee believes that greater efforts should be made to encourage and foster research in occupational therapy. It believes that such work has been hampered to a degree by the fact that for a number of years the Committee on Occupational Therapy has been appointed annually and that as a rule it has been composed of different individuals each year. In course of time it has happened that several persons have served successively or intermittently but there has been nothing to encourage a feeling on the part of the members of the committee that any plans which they might form would be continued under their guidance.

Therefore, it is respectfully suggested that the policy be inaugurated of continuing a portion of the committee more or less permanently in order that sufficient time may be allowed to formulate more definite plans and policies than has been possible in the past. A precedent is afforded by the Committee on Standards. A difficulty has been that the wide geographic separation of the members has made the contact difficult, and this will be made easier by longer association.

It is also believed that such committee might wisely make some affiliation with the American Occupational Therapy Association and appoint one of its members to participate at the meeting of the latter Association.

THE PRESIDENT.—If there is no comment the report will be received as read.

Next is the Report of the Committee on Statistics.

DR. ABBOT.—At the request of the Committee on Statistics I read the report:

REPORT OF THE COMMITTEE ON STATISTICS.

The introduction of the Association's classification of mental diseases and uniform statistical system has been advanced to a considerable extent by the fact that the Federal Census Bureau in its special census of hospitals for mental diseases used the classification and a number of features of the system. All but one state hospital and practically all of the other large institutions, both public and private, used the Association's classification of mental diseases in making returns to the Federal Census Bureau. The schedules of the Army, Navy, and Public Health Hospitals conformed to this classification. Although the classification was used only in part by the hospitals of the United States Veterans' Bureau in this census, manuals have been sent in considerable numbers to these hospitals upon request, by the National Committee for Mental Hygiene, and some of them are known to be using the system in its entirety.

The committee is informed that the report of such census will soon be published. Bulletins giving the general result have already been issued. The complete report will include patients resident in hospitals, and patients absent but still on books on the date of the census; first admissions, readmissions, discharges, and deaths for the calendar year of 1922; value and acreage of state hospital plants; administrative personnel; and the cost of maintenance of patients in state hospitals. The results of this census will

be of exceptional interest, as it is the first to use the Association's classification of mental disease, and the first to present separate data for first admissions. The report will also contain new and valuable data concerning ex-service patients, and patients in psychopathic hospitals and psychopathic wards of general hospitals.

Altogether 526 institutions for mental disease were represented in the census. Of these 163 were state hospitals, 2 government hospitals, 148 other public hospitals, and 213 private institutions. The census showed that patients in institutions had increased from 187,791 in 1910 to 267,617 in 1923. The rates of resident patients per 100,000 of population in two years were 204.2 and 241.8, respectively. During the year 1922, these institutions received 73,063 first admissions and 16,392 readmissions. The discharges numbered 52,777 and the deaths 25,656.

The detailed results of the census, which will be elaborately set forth in the report, will be of great value to the members of this Association. As the edition will be limited, it is suggested that they make early application for a sufficient number of copies to supply their medical staffs.

RECOMMENDATIONS.

Although nearly all of the larger hospitals, public and private, are known to have adopted the system, there is still a considerable number that have failed to send in tabular forms, or to follow the Association's system in their published reports. This committee would urge all hospitals that have not already done so to use the standard tables in the preparation of their annual reports, and to send in advance sets of tables to the National Committee for Mental Hygiene.

The committee recommends the addition of one table to the uniform set. This table would correlate for the first admissions age with nativity and parentage, and would also give the length of residence in this country prior to admissions for the foreign born. From the standpoint of immigration and its bearing upon mental health, it seems important to make this addition to the tables. It is believed that such compilations over a period of years would furnish first-hand information for further improvements in immigration legislation and in methods of dealing with accepted immigrants. A copy of the proposed new table is embraced in this report.

The committee would again urge the establishment of central statistical bureaus by state departments or boards having supervision of hospitals for mental diseases. These bureaus would receive card reports from the hospitals in their respective states and attend to the compilation of annual statistics of each hospital. This procedure would result in many advantages that are apparent to persons engaged in hospital work.

The Federal Census Bureau has under consideration the preparation of an annual statistical review of institutions in the United States, including hospitals for mental diseases. However, up to the present time, funds therefor have not been provided by Congress. This committee feels that such authoritative studies by the Federal Census Bureau would be of

great value, and therefore recommends that a resolution be passed by this Association requesting Congress to make sufficient appropriations to accomplish this purpose.

Two years ago the Association voted to make an appropriation to the National Committee for Mental Hygiene in recognition of its efforts in forwarding the uniform statistical system. Similar action was taken last year. Your committee would recommend that an appropriation be granted for the following year, so that the National Committee for Mental Hygiene may continue to cooperate with the Association in attending to the numerous details involved in the printing and distribution of the cards, forms, and manuals, and in the collection of annual statistics from the hospitals.

Respectfully submitted,

JAMES V. MAY, *Chairman*,
ALBERT M. BARRETT, *Vice-Chairman*,
E. STANLEY ABBOT,
C. MACFIE CAMPBELL,
OWEN COPP,
GEORGE H. KIRBY,
SAMUEL T. ORTON,
THOMAS W. SALMON,
W. L. TREADWAY,
FRANKWOOD E. WILLIAMS.

Committee on Statistics.

THE PRESIDENT.—You have heard the report of the Committee on Statistics. Unless there is some comment it will be received and recommendations as suggested will be presented to the Committee on Resolutions which the Chair will appoint at this meeting.

Dr. Kirby, are you ready to make the Report on the Committee on Standards and Policies?

DR. KIRBY.—This morning I would like to distribute a copy of the Report that can be read before this afternoon.

The Secretary then made an announcement regarding the Round Table Conferences.

THE PRESIDENT.—The Chair will appoint the following Committee on Resolutions: Dr. Garvin, Dr. Abbot and Dr. Devlin.

If there is no further business before this meeting we will proceed to the first paper on the program by W. B. Healy, M. D., Boston, Mass., entitled "The Newer Psychiatry. Its Field and Function. Training for It." Discussed by Doctors Haviland, White, Abbot, Bliss, Coriat, Oliver, Nelson, Brush, Burr, Elwood, Ratliff, and by Dr. Healy in closing.

The next paper on the program is "The Results of Prophylaxis in Psychotic Children," by A. A. Brill, M. D., New York. Discussed by Dr. Glueck.

The next paper on the program, "Necessity of Community Organization for the Prevention of Nervous and Mental Disorder," by Frankwood E. Williams, M. D., New York. Dr. Williams was not present so the meeting proceeded to the next paper on the program: "Social Psychiatry—Its Significance as a Specialty," by C. P. McCord, M. D., Albany, N. Y., Discussed by Dr. Smith.

DR. HUTCHINS.—The next paper on the program is one that should not be hurried and I move that we adjourn until the afternoon session.

Motion was seconded and carried.

AFTERNOON SESSION.

The meeting was called to order by the President.

THE PRESIDENT.—I will ask the auditors to report.

DR. GUTHRIE.—*Mr. President, Ladies and Gentlemen:* We the undersigned have examined the books and vouchers of the Secretary-Treasurer and find the same correct.

Respectfully submitted,

L. V. GUTHRIE,

J. M. FORSTER,

I. G. HARRIS.

THE PRESIDENT.—Dr. Hall, have you an announcement to make?

DR. HALL.—I would like to say to the members that tickets to the Round Table Conferences ought to be purchased from the Hotel Cashier before the day is done. There will be five Round Tables, and let the Hotel Cashier know tonight before you go to bed which Round Table you are going to attend.

I hope you all have tickets to Mr. Darrow's Address tonight. The ushers at the City Auditorium will pass you on your badges.

After Mr. Darrow's Address the President's Reception will be held here in this Auditorium instead of the parlors of this hotel. There will be a bite to eat, music and dancing.

Tomorrow morning at 9.15 a special train will leave Main Street Station for Williamsburg. Don't make the mistake by getting on the wrong train, but get on the Psychiatric Train. We will come back sometime tomorrow evening, 6.30 or 7.00 o'clock. Down at Williamsburg we are going to have fine things, including fine weather. We will get back tomorrow evening and then have the Round Table Conferences.

THE PRESIDENT.—The next business will be the report of the Committee on Standards and Policies, in order that Dr. Kirby may get away when he wishes to.

REPORT OF THE COMMITTEE ON STANDARDS AND POLICIES.

The Committee on Standards and Policies has, during the past year, proceeded under the reference of the following resolutions which were adopted at the 1924 meeting of the Association:

"Resolved:

1. "That the Association approve of the classification of the hospitals for mental disorders of the country along the lines outlined in the report of the Committee on Standards and Policies."
2. "That the Committee on Standards and Policies be authorized to request from the hospitals and other sources the preliminary information required for determining the minimum standards which the hospitals can be reasonably expected to establish and maintain."
3. "That the Committee on Standards and Policies be instructed to report at the 1925 meeting of the Association the schedule of minimum standards which it is prepared to recommend and a practical plan for the classification of the hospitals by the Association."

It will be recalled that in its report last year the committee reviewed briefly the methods which are employed by the American Medical Association and the American College of Surgeons in the classification of the general hospitals of the country, and those which the American Sanatorium Association employs in the study and rating of the tuberculosis hospitals and sanatoria. It expressed a preference for the principle applied in the plan of the American College of Surgeons which consists in classifying the hospitals with reference to a few fundamental essentials for a good hospital service for the individual patient rather than for the elaborate plan of the American Sanatorium Association which involves an examination into details relating not only to medical study and treatment but also to location, sanitation, plant, departmental equipment, and general administrative organization and methods. In accordance with this preference, the committee presented last year a tentative schedule of standards, covering eighteen items, that appeared to the committee to be outstanding fundamental essentials for a good hospital service for the study and treatment of the patients of a hospital for mental disorders. The Association by resolution approved of the plan thus outlined by the committee.

Proceeding under the instructions contained in the Resolutions, the committee prepared a questionnaire, which was sent to the national and state hospitals and the larger county and city hospitals of this country, and to the public hospitals of Canada with membership in the Association. The committee thought it inadvisable to include in the present inquiry the private benevolent hospitals, the proprietary institutions, the psychiatric clinics, or the smaller county hospitals. The number of questionnaires thus sent out was 186. The number of replies received in time to permit of the information being used in preparing this report was 78. Several others have come in since, and the committee asks that if the Association decides to proceed with the standardization scheme, those who were not able to furnish the information before will not fail to forward it as soon as

possible. The committee fully realizes the laborious task which it felt obliged to impose upon the hospitals, and it wishes to express its deep appreciation of the replies that were received and of the manifest care with which so many of them were prepared.

The States from which replies to the questionnaire were received in time to summarize were: Arizona, California, Connecticut, District of Columbia, Georgia, Illinois, Indiana, Iowa, Kansas, Kentucky, Louisiana, Maine, Maryland, Massachusetts, Michigan, Minnesota, Missouri, Nebraska, New Jersey, New York, North Carolina, North Dakota, Ohio, Pennsylvania, Rhode Island, South Dakota, Tennessee, Texas, Utah, and Virginia; Provinces: Manitoba, Ontario, Prince Edward Island, and Saskatchewan.

Not all of the hospitals in every state mentioned have yet been heard from, and the total number of replies was less than half of the total number of hospitals addressed. The information seems, nevertheless, to be sufficient to permit of a fair estimate of hospital conditions in the different sections of the country. None of the hospitals heard from reported standards that were in all particulars up to those proposed in the tentative schedule presented last year. In a few instances the standards were, in some particular, superior to those proposed. The splendid example set by the Government Hospital at Washington with its adequate per capita expenditure, its proportion of physicians to patients of 1 to 133, its proportion of nurses of 1 to 6.5 patients, its well organized services and treatment departments, its fine laboratories, and its library of 11,000 volumes should arouse the emulation of every State, and be a source of pride and encouragement that we may all share in without envy.

The size of the hospitals from which reports were received varied from an average daily patient population of 97 up to 5239. Nearly all reported crowding beyond the official capacity. The annual per capita cost of maintenance varied from \$111.63 to \$537.02, the average being \$299.79. It is noteworthy that, while there was usually a manifest correlation between the standards reported by each hospital and the amount spent for maintenance, this was not invariably so. With equal per capita expenditure, under similar conditions, there were still, in some instances, marked differences in the standards of organization, equipment, and methods reported by corresponding hospitals. Striking instances of relatively high per capita cost and standards below the average of those reported from all the hospitals, and of relatively low per capita cost and standards above the average, could be cited.

Forty of the hospitals reported that the organic law or the regulations governing the institution required that only a physician who was qualified in psychiatry could be appointed superintendent. In several of the reports from the remaining hospitals, it was stated that, while there was no requirement of this character, the practice which had invariably been followed was the appointment of a qualified psychiatrist. In many there was no reference to any required qualifications, or it was stated that the superintendent must be a physician. In 17 instances it was stated that the appointment was made for a limited term. In 22 hospitals the superintendent had

unlimited control of the appointment and removal of his subordinates. Thirty-four hospitals were operated under an organized civil service system. Nineteen hospitals only reported that psychiatric experience was required for appointment to the higher positions of the medical staff. The ratio of physicians to patients in hospitals in which more than one physician was employed varied from 1 to 114 to 1 to 640, the average being 1 to 223.9. Only four reported a ratio of 1 to 150 or less. The average ratio of physicians to the number of patients admitted during the year was 1 to 53.4. The number of medical vacancies reported amounted to 13.7 per cent of the total positions. Thirty-six of the hospitals reported that they had no vacancies. Forty-three reported the employment of a full-time dentist; three that no provision was made for dental service. Fifty-eight employed consultants, and 26 reported that they were paid for their services. Twenty-six reported that a record was kept of the visits made by consultants. Staff conferences were held by 72 of the hospitals, and minutes of the conferences were kept by 62 of them. At 41 hospitals there was a special staff leader or clinical director. The average number of staff conferences of the hospitals which reported was three a week.

From the information received from some of the hospitals it was difficult to determine how the patients were classified and the medical service organized. In some instances the reports seemed to indicate that there were no specially segregated and organized units for reception and for intensive work on new cases, for the treatment of acute sick and surgical cases, or for other well-defined types of cases that require special provision for their study and treatment. Sixty-three, however, reported a separate organized unit for reception and intensive treatment purposes, and 45 a similar unit for acute physical illnesses and surgical cases. At twelve of the hospitals, each of the separate medical services into which the hospital was divided was furnished with a physicians' office and eleven had an examination room in each service. A filing system for the case histories was provided on each service at 29 of the hospitals. The average amount per patient which was spent last year for medical and surgical supplies was \$2.76, the minimum being \$0.24 and the maximum \$11.21.

Nearly all the hospitals reported some provision for laboratory work. Twenty-four employed a pathologist, and 38 one or more trained technicians. Fifty-seven were equipped with X-ray apparatus, varying from a dental unit to a complete standard hospital outfit. Special diet kitchens were reported by 50, and 63 were equipped with medical libraries. The average number of volumes in these libraries was 776, the minimum being 89, and the maximum 11,000. The number of volumes added during the year varied from 2 to 750, the average being 32. The average number of medical journals subscribed for was 12, the minimum being 2, and the maximum 85. Thirty-five of the hospitals reported that staff conferences for review of the medical literature were regularly held.

Surgical operating rooms, usually well equipped, were reported by 66 of the hospitals; 70 reported that they were provided with hydro-

therapeutic equipment and 53 that they employed specially trained personnel for its use.

A specially trained personnel for occupational therapy was reported by 58 of the hospitals, and 44 stated that a separate room or shop for occupational treatment was used. Some of the hospitals evidently misunderstood the inquiry concerning occupational therapy and included in their replies all the patients who were engaged in any kind of employment. It is evident, however, from the number of hospitals that employ trained personnel for occupational therapy that this form of treatment has gained a firm foothold. Twenty-four hospitals reported a trained personnel for physical exercises and games. Only five reported a gymnasium and 73 were reported with a social hall.

Out-patient clinics were conducted by 33 of the 78 hospitals that reported, the number conducted by each varying from one to six. Thirty-nine employed social workers, the total number employed being 73. The ratio of social workers to the patients on parole from the hospitals which employed social workers was 1 to 99.3.

The general nursing service of the hospitals is indicated by the ratio of nurses to patients which varied from 1 to 20.3 to 1 to 6.5. The average ratio was 1 to 10.8. Twelve reported a ratio of 1 to 8 or better. Fifty of the hospitals, about two-thirds, conducted training schools for nurses. Twenty-one reported that they did not use mechanical restraint. Some of these stated that they did use seclusion. Formal regulations and reports for the management of restraint and seclusion were in force in 66 of the hospitals. Twenty reported the use of wristlets, anklets and belts.

The average standards revealed by the information obtained by the committee are clearly below those of the tentative schedule presented in its report last year. Different items of the schedule are, however, closely approached, fully reached, or even surpassed by different hospitals. The committee believes, therefore, that it can recommend to the Association the adoption of the schedule as originally presented, with few modifications. It seems certain that, in the treatment of the sick, no community, nor State of this country or of Canada, will continue to accept standards that are inferior to those which prevail elsewhere. The schedule presented, therefore, seems to the committee to be the minimum which the Association should approve and work for. It does not appear to be beyond what the hospitals can be reasonably expected to establish and maintain, and in its revised form* it is recommended to the Association as follows:

1. The chief executive officer must be a well qualified physician and experienced psychiatrist whose appointment and removal shall not be controlled by partisan politics.
2. All other persons employed at the institution ought to be subordinate to him and subject to removal by him if they fail to discharge their duties properly.

* This schedule is applicable only to the district, state, and county hospitals that admit all types of cases.

3. The positions and administration of the institution must be free from control for the purposes of partisan politics.

4. There must be an adequate medical staff of well qualified physicians; the proportion to total patients to be not less than 1 to 150 in addition to the superintendent, and to the number of patients admitted annually not less than 1 to 40. There must be one or more full-time dentists.

5. There must be a staff of consulting specialists at least in internal medicine, general surgery, organic neurology, diseases of the eye, ear, nose and throat, and radiology, employed under such terms as will ensure adequate services. A record of their visits must be kept.

6. The medical staff must be organized, the services well defined and the clinical work under the direction of a staff leader or clinical director.

7. Each medical service must be provided with an office and an examining room, containing suitable conveniences and equipment for the work to be performed, and with such clerical help specially assigned to the service as may be required for the keeping of the medical and administrative records.

8. There must be carefully kept clinical histories of all the patients, in proper files for ready reference on each service.

9. Statistical data relating to each patient must be recorded in accordance with the standards system adopted by the Association.

10. The patients must be classified in accordance with their mental and physical condition, with adequate provision for the special requirements for the study and treatment of the cases in each class, and the hospital must not be so crowded as to prevent adequate classification and treatment.

11. The classification must include a separate reception and intensive study and treatment department or building, a special unit for acute physical illnesses and surgical conditions, and separate units for the tuberculosis, and the infirm and bedfast. Each of these units must be suitably organized and equipped for the requirements of the class of patients under treatment.

12. The hospital must be provided with a clinical and pathological laboratory, equipped and manned in accordance with the minimum standards recommended by the Committee on Pathological Investigation.

13. The hospital must be provided with adequate X-ray equipment and employ a well qualified radiologist.

14. There must be a working medical library and journal file.

15. The treatment facilities and equipment must include:

(a) A fully equipped surgical operating room.

(b) A dental office supplied with modern dental equipment.

(c) Tubs and other essential equipment for hydrotherapy operated by one or more specially trained physiotherapists.

(d) Adequately equipped examination rooms for the specialties in medicine and surgery required by the schedule.

(e) Provision for occupational therapy and the employment of specially trained instructors.

(f) Provision for treatment by physical exercises and games and the employment of specially trained instructors.

(g) Adequate provision for recreation and social entertainment.

16. Regular staff conferences must be held at least twice a week where the work of the physicians and the examination and treatment of the patients will be carefully reviewed. Minutes of the conference must be kept.

17. There must be one or more out-patient clinics conducted by the hospital in addition to any on the hospital premises. An adequate force of trained social workers must be employed.

18. There must be an adequate nursing force, in the proportion to total patients of not less than 1 to 8, and to the patients of intensive treatment and acute sick and surgical units of not less than 1 to 4. Provision must be made for adequate systematic instruction and training of the members of the nursing force.

19. Mechanical restraint and seclusion, if used at all, must be under strict regulations and a system of control and record by the physicians, and must be limited to the most urgent conditions.

The committee understands, however, that the interest of the Association lies not so much in the formulation of a schedule of standards as in seeking a way by which the assembled knowledge and weight of influence of the Association can, by some practical organized plan, be brought to bear on the problems of its individual members in their efforts to improve their hospitals. Experience in other fields of hospital, health, and educational work, seems to indicate that a moderate programme of standardization by some reliable and authoritative agency may be carried on with advantage. Such a programme should be principally instructive and cooperative. The invitation to study the operation of a hospital for the purpose of grading or classifying it would have to be offered by the persons most interested and they would, before doing so, have to be convinced of the advantages. The task would require visitation and study by skilled medical visitors, and the attention of a committee that would command respect and confidence, and that would give much time to the work. Full understanding, not only of the character of the work performed by a hospital, but of the conditions under which it was performed, would be necessary. If the Association desires to undertake a project of this kind, it will be necessary for it to find means for building up a permanent paid organization. The committee feels sure that no standardization system could be successfully operated without visitation, and that the expense for office rent, clerical service, travelling, and salaries, would, even during the first year, be not less than \$15,000. The committee feels, therefore, unable to present a fully developed practical plan.

It would add, however, that it might be advisable, in order to make a start, to endeavor during the next year to make a tentative graded list from the information obtained from the questionnaires and from further inquiries which could be made by mail. Additional information might also be obtained from the National Committee for Mental Hygiene which has accumulated much about the hospitals and the psychiatric conditions in different States, and is continually adding to this and bringing it up to date. To undertake this, however, the Committee on Standards and Policies would require a small fund for clerical services and for travelling expenses. Three or four

meetings of the committee at least should be held during the year, and the expenses of members from a distance should be paid by the Association. The committee believes that it will be well worth while for the Association to continue its efforts to establish a standardization programme. It seems certain that, if wisely managed, great good might come of it, and that all the hospitals and the field of psychiatry generally would derive benefit.

The committee wishes to acknowledge its obligation to Miss Furbush, Director of the Department of Information and Statistics of the National Committee for Mental Hygiene, for the statistical summaries and for much useful advice in the preparation of this report.

W. L. RUSSELL,
W. M. ENGLISH,
G. H. KIRBY,
C. MACFIE CAMPBELL,
S. T. ORTON,

Committee.

THE PRESIDENT.—You have heard the Report read by Dr. Kirby. Are there any remarks on this Report? If not it will be received in the usual way.

Next is the Report of the Committee on Pathological Investigation. I understand there is no one here to represent that committee.

Next will be the Report of the Committee on Legal Aspects of Psychiatry by Dr. Menninger.

REPORT OF COMMITTEE ON LEGAL ASPECTS OF PSYCHIATRY.

As the committee appointed by President White "to study and investigate the legal aspects of psychiatry with special reference to difficulties arising in the field of psychiatric expert testimony, and to report to the Association," we have had before us a complicated task. We had not only the theoretical and philosophical aspect of medicine and law to harmonize, but also the necessity of proposing a practical scientific solution and a possible medico-legal compromise.

It was our task to weigh the *issues* involved and try to formulate specifications; to discover and suggest the *avenues* for a remedy of the present unsatisfactory situation and to recommend such steps to our association as would appear to be most practical in beginning the reformation.

There is probably no dispute but that the present medico-legal situation is unhappy and no member of the medical profession is more concerned in this than the psychiatrist. Not only is the psychiatrist brought conspicuously into disrespect and distrust because of the spectacular nature of the cases in which he testifies, but the changing conception of psychiatry into that of a medical social science, has greatly increased his importance in the court room. It has brought what was formerly a matter of ignorance into what is a matter of polemics. In a day and age when no less a person than Lord Chancellor Haldane can give as his opinion that he "does not know any more vague science than psychology is at the present and thinks that is a

most dangerous science when applied to practical affairs," it is time for the psychiatrists as a body to rise to a correction of such evils in the system as should permit of such misunderstanding of its function and purpose.

The committee felt that it would not be in keeping with the spirit or method of science to limit its consideration to any single point in the problem such as was suggested in the original motion, any more than it would be possible to scientifically discuss with pragmatic advantages any one symptom of a disease entity. The problem must be considered as a whole. It seemed to divide itself into certain legal changes or reformatations which we feel are presently imperative, certain scientific projects which must be undertaken before we can speak with as much authority as we would like, and the problem of propaganda and education of the public and the legal and medical professions.

I. *In re*: Specific legal amendments.

(1) In regard to the laws and legal opinions regarding criminal responsibility: A criminal responsibility bill has been proposed which has certain pros and cons (see White, "Insanity and the Criminal Law," page 142). (2) As for laws in regard to expert testimony, suggestions have also been made here (see White, page 143). (3) The committee feels that a very determined effort should be made by this organization to unify and harmonize the commitment laws in the various States.*

In order to effect these changes which are now impossible in most States because of legal barriers and public misinformation and professional ignorance, it seems highly advisable to the committee that we first agree among ourselves as to what is most desirable and then that we consider the calling of a special joint meeting of a committee from this organization and a committee from the American Bar Association. The Institute of Criminal Law and Criminology, and any other representatives bodies who are in a position to come to definite conclusions and take definite cooperative steps in regard to the needed requirements.

II. *In re*: Scientific Research in Criminology and Penology.

As for scientific projects, it would seem that the American Psychiatric Association ought perhaps to include in its program for research the collection of reliable statistics in regard to certain psychiatric aspects of crime. To some extent this has already been undertaken by the National Committee for Mental Hygiene, but there is reason to believe there is plenty of material for this body to assist in correlating.

Also, penological technique should certainly be considered by The American Psychiatric Association.

Though the very remarkable psychiatric operations in such representative prisons as Joliet and Sing Sing have never been adequately presented at a

* It is a determining corollary that the conception of "Insanity" should be relegated to legal definition and legal usage, and that all medical use thereof be abolished. In so far as it means commitment, there should be precise criteria determined by the statutes for use in civil and probate procedure only.

meeting of The American Psychiatric Association and it is more than possible that some of our members are largely ignorant of the psychiatric procedure that is already in vogue at some of these better prisons.

III. *In re*: Propaganda and Education.

Most important of all, in the committee's opinion, is the development of a definite philosophical attitude and an informative educational campaign concerning the psychiatrist's medico-legal situation. The American Psychiatric Association has been exceedingly conservative in its self-expression. It will be felt by some that the major burden of propaganda is the duty of the National Committee for Mental Hygiene rather than of The American Psychiatric Association. Nevertheless the former can scarcely be expected to take any direct steps to eradicate the opinion held by the public of the expert, and particularly of the psychiatrist, which has been so widespread and which seems to increase rather than decrease (see White, page 7). This organization might do something to promote the study of criminology in the law schools to be taught by a competent psychiatrist. It could give a somewhat more definite support to the juvenile court. It could very definitely and vociferously emphasize the total disinterest of the scientist in matters of punishment, responsibility and justice (a scientist is, of course, interested in none of these but merely in the problem of amelioration, social and individual). A scientist collects certain facts—(not "evidence")—and upon these facts attempts to establish a diagnosis, prognosis, and a line of treatment. This treatment may or may not mean confinement, but it certainly never means punishment; it certainly never concerns itself with "justice" and it is totally innocent of sophistry about "responsibility." This point of view should be gotten across to the laity, to the legal profession *and to the medical profession*; and certainly every member of our organization should be so imbued with this gospel that it would never more be possible to put the psychiatrist in the unholy light of a medieval argument between two lawyers about someone's "responsibility" or someone's "punishment" or someone's "insanity."

It was not the duty of this committee to consider the prevention of crime; this is a task for the Committee on the Prevention of Juvenile Delinquency and similar organizations. It was not its task to consider the treatment of the misbehaved, as is essayed by the American Orthopsychiatric Association. It has been our task to consider the general medico-legal situation in the United States from a psychiatric standpoint and offer suggestions for its amelioration. If we do no more than summarize the problem and so report, we shall have made a start, although in some directions we can hope to do more.

In order to get a composite record of the opinions of various men, the following questionnaire was prepared by the Chairman and sent to all members of the committee and a score or more other members of the Association.

I. IN REGARD TO THE IMMEDIATELY IMPERATIVE STATUTORY CHANGES.

1. What do you favor in regard to a bill relative to criminal responsibility?
2. What do you think of the Criminological Institute proposal? (See White, page 142.)
3. What do you favor in regard to a bill relative to expert testimony?
4. What do you think of the Criminological Institute proposal? (See White, page 143.)
5. What is your attitude toward the Chairman's proposal of the codification of the commitment laws?
6. How do you think it could best be done?
7. Do you think we should relegate the word and conception, "insanity," to legal usage only?
8. How effected?
9. Should this Association invite the formation of a joint committee with the Bar Association for these purposes? Any one else?
10. What do you regard as the most important statutory changes to be sought?

II. IN REGARD TO SCIENTIFIC PROJECT.

1. What research should The American Psychiatric Association instigate which will contribute to the solution of medico-legal problems?
2. Should there be a survey of the nation at large to discover the exact nature of medico-legal situations in various and specific places?
3. Should this be correlated with practices in foreign countries as England, France, Germany, etc.?
4. What do you consider to be the position of the psychiatrist in regard to the *convicted* criminal?
5. Would you favor more penological and criminological papers and discussions in The American Psychiatric Association?
6. On what particular topics or subjects?

III. IN REGARD TO EDUCATION AND PROPAGANDA.

1. Do you regard propaganda to the end of correcting popular misconception of psychiatric aim and function, with particular reference to their legal aspects, as desirable *per se*?
2. Should it be carried on by The American Psychiatric Association?
3. Should it be considered or mentioned by this committee in its report?
4. What avenues and measures are open and feasible for such activity on the part of The American Psychiatric Association?
5. In what particulars should the membership of The American Psychiatric Association itself be more uniformly informed and agreed?
6. Should this committee recommend to The American Psychiatric Association that it officially seek to encourage the establishment of courses in criminology in law schools, preferably taught by psychiatrists?

IV. WILL YOU PLEASE GIVE IN GENERAL YOUR OPINION AS TO

1. What this committee should do?
2. What this committee should recommend?
3. What further points should be inquired of from the various members of the committee and the replies correlated?
4. What remarks in general would you like to make?
5. Will you please criticize the chairman's preamble *ad lib*? (by interlineations).

The response to these questionnaires has been gratifying and a mass of opinion with a surprising majority of consensus has been received and correlated. The committee feels, however, that the time has been insufficient for a thorough digest of so important a topic. Many members could assist materially by volunteering to put their opinions and attitudes in writing and are hereby earnestly solicited so to do. A thoughtful, thorough research dealing with these problems is shortly to be published by Mr. Sheldon Glueck which has received high praise and which the committee believes should be critically examined and analyzed by them before delivering its final report on the topic.

Accordingly your Committee on Legal Aspects of Psychiatry respectfully submits this as a preliminary report and requests a continuance of one year.

KARL MENNINGER, *Chairman.*

DRS. GLUECK,
HEALY,
LOWRY,
ADLER,
WILLIAMS,
JELLIFFEE,

Committee.

THE PRESIDENT.—You have heard the report of the committee. What is your pleasure?

DR. HULBERT.—I think that the committee should broaden its contacts. I think it would be advisable for us to have in mind the enactment in some State of a model law on expert testimony, some State that is regarded by the States as a real leader, and that our committee should invite the cooperation of a committee from the State Legislature and the Medical Society, for without them we won't get very far, and that this committee, in our name, invite the cooperation of the American Bar Association, and the American Medical Association, and ask them to form a joint committee with ours. One-half from The American Psychiatric Association, one-quarter from the American Bar Association, and one-quarter from the Association of Criminal Law. That this committee further cooperate and communicate with the Attorney General of that State and the Associations of State's Attorneys and get their viewpoint, which I think would be most valuable. If our committee got in touch with the judges of that State and sought advice from professors of psychiatry, professors of criminal law, and professors of sociology our cause will be permanently advanced. I suppose everyone here practically has some ideas of what should be done to improve the liason between psychiatry, medicine, and the law. Furthermore, this investigation should be done as a matter of research and laboratory problems should be considered. Perhaps it would take about a year to outline what we want to present to the Legislature, or two years.

DR. OLIVER.—Judging by my own experiences with the Legislature of Maryland, I feel that the suggestions which have been offered, excellent though they are, would require not two years, but twenty-five or thirty, for their completion. However I approve most heartily of the suggestion that the committee might do well to "broaden its contacts."

THE PRESIDENT.—Next business is the Report of the Committee on Nursing:

DR. FULLER.—In the absence of Dr. Cohoon I will read the Report.

REPORT OF THE COMMITTEE ON NURSING.

The Committee on Nursing has made efforts during the year to increase the number of training schools for nurses which meet the minimum standard of requirements.

Further survey of the unlisted schools by questionnaire was made and the replies show that 17 schools have met the minimum requirements, and these schools are hereby recommended to the Association for certification, to be added to the accredited list. This will make the total number of approved schools 61. All of the 17 herein recommended not only fulfil our requirements in every respect, but actually exceed them, so that there is no doubt as to their eligibility for certification.

The list of schools recommended for certification is as follows:

ILLINOIS.

Anna State Hospital, Anna, Ill.
Jacksonville State Hospital, Jacksonville, Ill.
Kankakee State Hospital, Kankakee, Ill.

MARYLAND.

Sheppard & Enoch Pratt Hospital, Towson, Md.

MASSACHUSETTS.

Northampton State Hospital, Northampton, Mass.
Westboro State Hospital, Westboro, Mass.

MICHIGAN.

Kalamazoo State Hospital, Kalamazoo, Mich.
Travers City Hospital, Travers City, Mich.

NEW JERSEY.

New Jersey State Hospital, Trenton, N. J.

NEW YORK.

Gowanda State Homeopathic State Hospital, Helmuth, N. Y.

PENNSYLVANIA.

Allentown State Hospital, Allentown, Pa.
Dixmont Hospital, Dixmont, Pa.
Friends' Hospital, Frankford, Pa.

SOUTH CAROLINA.

South Carolina State Hospital, Columbia, S. C.

CANADA.

Ontario Hospital, Toronto, Ont.
Ontario Hospital, Kingston, Ont.
Ontario Hospital, Brockville, Ont.

Your committee feels that some kind of follow-up supervision of accepted schools is a part of its function. It, therefore, recommends that each school be required to furnish the committee annually an accurate report, showing the actual number of hours of instruction given and any other data which the committee may request, showing its continued conformation with the requirements of the minimum standard. This report must be in the hands of the committee at least two months before the

annual meeting and failure to comply with this request, or failure to show that the requirement has been met, will be deemed sufficient ground for removing the school from the accredited list.

During the coming year official certificate of the Association will be issued to each of the hospitals already approved.

While it is apparent that the maintenance of schools already established is in some instances difficult, and while some superintendents, who are entirely in accord with the purposes of standardizing curricula find it well-nigh impossible to meet the reasonable standard set by the Association, nevertheless, your committee believes that progress is being made and that each year will show more schools conforming to the requirements.

By the maintenance of these standards the nursing care of the mentally ill in our hospitals will be gradually recognized as a calling, not only of respectability, but of dignity and serious purpose; appealing to the best that is in one, demanding the intelligent effort of every pupil and the earnest cooperation of every hospital staff. Without such effort we cannot hope to put the nursing of mental patients in our hospitals on par with the nursing of medical and surgical patients and get for our hospital patients the humane, intelligent and skillful care which we would want for ourselves or for any of ours, in case of a mental or nervous breakdown.

C. F. WILLIAMS,
D. H. FULLER,
R. M. CHAPMAN,
DAVID F. WEEKS.

THE PRESIDENT.—You have heard the Report of the Committee on Nursing. Are there any comments? If not it will take the usual course.

The first paper this afternoon is the last paper of the morning session by C. P. Oberndorf, M.D., New York, N. Y., "Psychoanalysis in Mental States Approximating Psychoses."

Dr. Oberndorf's paper is open for discussion. If there is no discussion I will call for the next paper on the program by Dr. Harry S. Sullivan, Towson, Md., "Peculiarities of Thought in Schizophrenia."

Dr. Sullivan's paper is open for discussion. Do I hear any discussion?

We will proceed to the next paper on the program by Smiley Blanton, M.D., Minneapolis, Minn., "Behavior Clinics for Preschool and Kindergarten Children." Dr. Blanton's paper was discussed by Dr. Menninger, Dr. Ruggles, and Dr. Blanton in closing.

The next paper on the program is by Dr. R. P. Truitt, New York, N. Y., "The Relation of Social Work to Psychiatry."

The next paper on the program will be "The Psychiatry of Hippocrates." A Plea for the Study of the History of Medicine, by J. R. Oliver, M.D., Baltimore, Md.

The next paper is by Dr. H. A. Cotton, Trenton, N. J., "Treatment of Dementia Præcox Based on One Hundred Cases."

Session adjourned.

WEDNESDAY EVENING, MAY 13, 1925.

The meeting which had been thrown open to the public was called to order at 8.30 p. m. in the City Auditorium, the President, Dr. White, in the Chair.

THE PRESIDENT.—My function tonight is a simple one. Primarily it is to introduce the speaker of the evening. In order that you may understand why he is here I will explain:

There is meeting in your city this week The American Psychiatric Association. For you who do not know what psychiatry is; it is that branch of medicine that deals with mental illness. Now we psychiatrists are students of human personality, and in our work we are necessarily brought into close contact with all manner of human problems. Among those problems are the problems of the criminal, and in connection with our studies of criminals we are frequently asked to go forth and to testify as to their mental condition. Now within the past few years all of you know that the testimony of the so-called expert, particularly an expert in mental diseases, has fallen into very great disrepute, so much so that the members of both medical and legal profession have recently taken to the study of the situation to see what could be done in the matter. If I may make a personal reference I can say that I have had a relatively extensive experience on the witness stand extending over a period of some thirty-odd years, and in order to give you some idea how this situation has developed I can say to you that in all those years I have been associated with but two lawyers in the conduct of any case who really understood the point of view of the expert in mental diseases. Now that simply means that lawyers are going one way and the doctors are going another way, that both diverge to such an extent that neither one any longer understands the language of the other. So that these two professions are being put to it to discover the solution of the difficulty, and our society and several societies of lawyers are working on the problem. It is the tradition of The American Psychiatric Association each year to ask some distinguished man to make the annual address, and upon this occasion the speaker of this evening was asked to make an address and he was asked to do that because it was felt he, as a lawyer, was more closely in touch with our problems of the understanding of human beings than almost any lawyer that we know. It was because we were very much interested in this matter of trying to get the two professions to understand each other's viewpoint that we asked him to make the address of the evening. We have come to our understanding as practicing physicians, and he has come to his as a practicing lawyer engaged in criminal law coming into close contact with criminals and attempting to understand the motives that prompted them to do the things for which they were being tried. Inasmuch as these problems of human personality are of interest not only to the medical profession and to the university professor but to all the people, we felt it was proper that the

people should be invited to hear Mr. Darrow, and that is the reason Mr. Darrow is here.

Mr. Darrow is an exceptional man. He has a message not only of great interest but I think of tremendous importance.

It gives me great pleasure, and it is an honor to introduce to you Mr. Clarence A. Darrow of the Illinois State Bar.

Mr. Darrow then gave the annual address to an audience of several thousand people.

At the conclusion of the address the reception to the President was given at the Hotel Jefferson.

MORNING SESSION.

THURSDAY, MAY 14, 1925.

The meeting was called to order by the President in the Chapel at the Eastern State Hospital, Williamsburg, Va.

THE PRESIDENT.—There is no report of the Council or any other reports this morning. The first paper on the program is by D. R. H. Foster, M. D., Pineville, La., "Paresis in the Negro."

Dr. Foster's paper was discussed by Drs. Swint, Thomas, Pollock, Mitchell, Stick, White, Faison and Dr. Foster in closing.

The next paper is that by J. A. Jackson, M. D., and H. V. Pike, M. D., Danville, Pa., "Reaction to an Intensive and Systematic Community Service Program." (Presented by Dr. Pike.) Paper discussed by Drs. Sandy, Abbot, Hutchings, Haynes, and Klopp.

Picnic lunch was then served on the grounds of the Eastern State Hospital.

THURSDAY EVENING, MAY 14, 1925.

Round Table Conferences were held at the Hotel Jefferson as follows:

Subject	Moderator
Administration	Ross Chapman, M. D.
Clinical Psychiatry	Albert M. Barrett, M. D.
Social Psychiatry	C. P. McCord, M. D.
Occupational Therapy	William Dunton, M. D.
Laboratory	Charles Gibbs, M. D.

MORNING SESSION.

FRIDAY, MAY 15, 1925.

The meeting was called to order by the President.

THE PRESIDENT.—The first order of business will be the Report of the Council. (Report read by Dr. Bond.)

A meeting of the Council was held Thursday, May 15, 1925, at 1 p. m. Dr. White in the Chair.

Present: Dr. Haviland, Dr. Bond, Dr. Ryon, Dr. Kirk, Dr. Clark, Dr. Kline, Dr. Mitchell, Dr. Swint, Dr. Abbot, Dr. Barrett, Dr. Brown, Dr. Harris.

The Secretary then read a letter from Dr. Groves Smith, retiring President of the Association for the Study of the Feeble-Minded. The Council decided to refer this to the Committee on Reorganization.

Motion was made and adopted that the Secretary be authorized to pay incidental committee expenses; also Mr. Darrow's expenses. It was moved and seconded that an honorarium of fifty dollars be given Mr. Darrow in addition to his expenses.

Dr. Barrett brought up the question of continuing the grant of two hundred and fifty dollars to the National Committee for Mental Hygiene for statistics. It was moved and seconded that two hundred and fifty dollars be appropriated for this work.

An informal discussion was had as to whether or not the Program Committee should have the right to accept or reject papers. It was the consensus of opinion that the Program Committee should consider this in consultation with the President.

The next matter to be considered was the meeting place of the Association in 1926. After an informal discussion motion was made that the next meeting be held in New York. The motion was seconded, and carried. Motion was made to make it unanimous for New York. The time of the meeting was also considered. Dr. Mitchell suggested that the time be arranged so as not to conflict with the American Neurological Association. The exact time was left to the Secretary for decision, the understanding being that the first week in June or last in May would be convenient. The Council then adjourned until 1926.

THE PRESIDENT.—You have heard the report of the Council, what is your pleasure?

DR. ABBOT.—I move that it be accepted and placed on file.

Motion seconded and carried.

THE PRESIDENT.—I shall call later for the Report of the Committee on Resolutions.

The first paper is by Horatio M. Pollock, Ph. D., New York, N. Y., "Mental Diseases in the United States in Relation to Environment, Sex

and Age." Dr. Pollock's paper was discussed by Drs. Devlin and Gordon, and Dr. Pollock in closing.

Dr. Hall, are you prepared to make any remarks at this time?

DR. HALL.—On account of the state of the weather yesterday at Williamsburg the members of the Association missed hearing the splendid historical address that was to be made by Dr. Douglas Freeman. I regret exceedingly that we could not hear Dr. Freeman. I hope he can be prevailed upon to have the address turned over to Dr. Brush to be printed in the JOURNAL.

THE PRESIDENT.—I am sure that will be a very happy solution to the problem, as far as a solution is possible.

Next is the Report of the Committee on Resolutions by Dr. Garvin.

REPORT OF THE COMMITTEE ON RESOLUTIONS.

On behalf of The American Psychiatric Association, the Committee on Resolutions desires to express its appreciation of the many courtesies extended by the officials of the State of Virginia and the City of Richmond, the hotel management and others, to the members of the Association and their guests on the occasion of its 81st Annual Meeting.

To the Committee on Arrangements, and especially to its Chairman, Dr. James K. Hall, and its Vice-Chairman, Dr. G. W. Brown, the Committee on Resolutions finds it hard to express in fitting words the high degree of its appreciation for the many arrangements made for the comfort and pleasure of the members of the Association. Notably among them has been the sumptuous entertainment at the Commonwealth Club and the extensive provisions made for viewing the interesting and historic features of Richmond, Williamsburg, and neighboring cities, but especially noteworthy has been the general atmosphere of cordial hospitality, for which the State of Virginia is famed, and with which the Committee on Arrangements has succeeded in imbuing the whole convention. Especial thanks are due to the Chamber of Commerce of the City of Richmond for its more than liberal contribution to the entertainment of the Association.

Your Committee on Resolutions would offer its congratulations to Dr. Harry C. Solomon and the Committee on Program for the character of the papers offered and the small number of readers who failed to appear. The stress laid on recent conceptions and methods in psychiatry deserves especial mention.

Dr. William A. White, our President, has conducted the sessions and business of the Association with geniality and promptness, and in his annual address has made several constructive suggestions, which have been taken up by the Council. As its report shows, a committee has been formed to carefully consider these far-reaching suggestions which deal with plans for greater cooperation and cohesiveness between this Association and the other organizations whose interests lie in the psychiatric field. They include means for financing some of the activities which this Association

might, indeed ought, appropriately take up, as will be indicated in some of the following resolutions which your committee hereby submits:

1. "WHEREAS, It is desirable that schools for nursing which are certified by this Association as "Accredited Schools" should not only attain the minimum standards outlined by the Committee on Nursing and adopted by the Committee on Standards and Policies, but should also maintain them, and,

"WHEREAS, The Association can determine whether or not the accredited schools have so maintained their standards only by means of regular inspections,

"Be it Resolved, That the Association provide for the annual inspection, or other satisfactory examination of accredited schools of nursing and for the dropping from the list of accredited schools those found below the minimum standards.

"Be it Further Resolved, That the 17 additional schools which during the past year have attained, or surpassed, the minimum standards, be hereby added to the list of accredited schools."

2. "WHEREAS, The committee on the legal aspects of psychiatry has begun an investigation on which it has rendered a preliminary report but which needs much further work, and,

"WHEREAS, This Association believes the investigation should be continued.

"Be it Resolved, That the Association continue the Committee on the Legal Aspects of Psychiatry for another year and that it urge each member of the Association to cooperate with the committee."

3. "WHEREAS, The Federal Census Bureau has under consideration an annual statistical review of institutions in the United States, including hospitals for mental disease, and,

"WHEREAS, The Committee on Statistics feels that such annual review by the Federal Census Bureau would be of great value, and,

"WHEREAS, The Congress has not yet appropriated any funds for this purpose, and,

"WHEREAS, This Association regards the proposed work of great value,

"Be it Resolved, That this Association urge the Congress to make adequate appropriation for this purpose and that a copy of this resolution be forwarded to the appropriate officials."

4. "WHEREAS, The Committee on Standards and Policies recommends the adoption by the Association of a schedule of minimum requirements for hospitals for mental disorders, differing but slightly from the schedule approved by this Association in 1924, and,

"WHEREAS, The Committee on Standards and Policies feels sure that an adequate plan for the classification of hospitals according to this schedule would require visitation and much expense, and,

"WHEREAS, The committee recommends the collection of such data as can be secured at a small expense,

"*Be it Resolved*, That the Committee on Standards and Policies be authorized to continue its efforts to gather such data as may promote the standardization program."

Respectfully submitted,
W. C. GARVIN, *Chairman*.

THE PRESIDENT.—You have heard the Report of the Committee, what is your pleasure?

Motion was made, seconded, and carried, that the Report be accepted as read.

THE PRESIDENT.—Is there any unfinished business this morning? If not the next paper on the program is by Dr. P. J. Trentzsch, Boston, Mass., "A Study of a Group of Mental Defective Adolescent Children by a Modified Circulatory Rating Test." Dr. Trentzsch's Paper was discussed by Drs. Gibbs, Abbot, Devlin, Menninger, and Dr. Trentzsch in closing.

The next paper on the program is by K. A. Menninger, M. D., Topeka, Kan., "Influenza and Schizophrenia. An Analysis of Ostensible Post-Influenzal Dementia Præcox as of 1918, and Five Years Later." This paper was discussed by Dr. Carmichael.

The next paper on the program is by Dr. Alfred Gordon, Philadelphia, Pa., "Obsessions in Their Relation to Psychoses."

The next papers on the program by Dr. S. Brown, 2nd, New York, N. Y., "A State Administrative Program for the Care of Mental Defectives," and by Dr. S. D. Ludlum and E. McDonald, M. D., Philadelphia, Pa., "The Smooth Muscle Reactions," will not be presented because of the absence of the authors.

THE PRESIDENT.—I have been President for a period of one year but during that one year my life has been so fast and furious that I have passed through the stages from infancy to senility and now before I drift off into oblivion I would like in passing the symbol of this office to my successor to say some words of advice and give some counsel to the one who is to take my place—as futile as counsel is supposed to be.

I can think of my incumbency in terms of psychological facts—the facts of the growth and development of all personality—and just as it is important that a beginner in this life should choose his parents with wisdom, so a duty of the President is that he should choose his predecessors with wisdom.

Now those of you who listened the other night to the address of Mr. Darrow know just how much we have to do with those choices.

Success is dependent upon our associates; in the first instance our parents, in the second our relatives a little farther removed, and the third of our friends and acquaintances. The secret of a successful administration lies in the proper choice of all members of this group. Now with that fatalism to which we are all subject I have in the current language of the day chosen the group to surround me. I have chosen the Vice-President, and Secretary, the Chairman of the Committee on Arrangements,

and Councillors, etc., and the degree of success that my administration has attained is due to the wisdom of these actions, whatever you choose to think them; so that whatever has been the success of this meeting is dependent upon all of these personal circumstances. So far as I have any testimony to offer I can say that no President of this Association has ever been more happily circumstanced in his surroundings by personal friends of ability who have been willing to carry on the work of the meeting. Now I am on the toboggan slide of my decline and for fear I may falter before I get gracefully to the end, I hasten to hand over the symbol of my power, so I will ask Dr. Harrington and Dr. Devlin to escort Dr. Haviland to the Chair so that I may give it to him with my own hands.

DR. HAVILAND.—*Mr. Ex-President and Members of the Association:* No one can be inducted into office as President of The American Psychiatric Association without experiencing a deep and profound sense of pride at the honor bestowed upon him.

But the feeling of pride is mingled with a sense of obligation. The duties of the President of this Association are not light. If they are to be fully and adequately discharged the coming year, I must seek your assistance and support. Just as you have supported the administration of the past year, so I ask and trust you will support the incoming administration.

It is not given to every President of the Association to succeed such a man as I am succeeding, for such men are rare. Honored as I am by my elevation to the highest position within your power to bestow, the honor gains added luster through the fact that I am following one of the foremost leaders and teachers in the entire field of modern psychiatry. But again, the added distinction implies added responsibility. To maintain the high standard set by my predecessor will not only demand the best that is in me, but the united effort of all active members of the Association.

Every past President of the Association has felt and expressed his appreciation of the esteem and respect shown him in his elevation to the position of presiding officer. But I yield to none of my predecessors in the depth of my genuine and sincere gratitude for the honor accorded me. It is one which will ever be cherished.

The American Psychiatric Association and the work it can accomplish are of tremendous social importance. Perhaps the work of no other medical group is as important from the standpoint of general social welfare. It is therefore gratifying that the members of the Association are of such a high type that there is definite assurance of continued progress in the application of psychiatric principles to the many social problems which call for solution.

The emphasis upon so-called social psychiatry, which has been evidenced throughout this meeting, implies no lessened interest in the mentally disabled individual, but rather a logical extension of that interest to the larger issues resulting from abnormal mental activity.

That the members of the Association are keenly aware of the opportunity before them is indicated by the comments of a lay visitor to our meetings the past week. He informed me that he had occasion to visit many different medical meetings and conventions in different parts of the country and that he had yet to see a medical group which appeared to him as thoroughly and acutely interested in its work as the group here at the annual meeting of The American Psychiatric Association. As President of that group I have especial reason to be justly proud. Such a group disinterestedly working to combat mental disease cannot fail to be one of the most potent factors in our social organization in alleviating human distress and in augmenting human happiness.

Again I would assure you that no man could appreciate more than I do the distinction conferred upon me. I cannot, therefore, do less than all within my power to promote the interests of the Association and of each individual member. To that end I pledge myself.

Is there any further business to be brought before the Association? There appearing to be none, I now declare the 81st Annual Session of The American Psychiatric Association adjourned.

EARL D. BOND, *Secretary*.

Notes and Comment.

PSYCHIATRY AT YALE UNIVERSITY.—The announcement has been made by Yale University of the appointment of Dr. Arthur H. Ruggles, medical superintendent of Butler Hospital, Providence, R. I., as lecturer in psychiatry in the school of medicine of the university and consultant in mental hygiene to the university department of health.

The university also has nominated Dr. Ruggles as psychiatrist to the Board of Directors of the New Haven Hospital and Dispensary, and it is anticipated that he will establish active cooperation with the Connecticut Society for Mental Hygiene, which maintains clinics in the larger cities throughout the state. Associated with the Butler Hospital of Providence for fifteen years and its director for the past five years, associated also with Dartmouth College in the organization of its mental-hygiene work with the student body during the latter portion of this same period, and with the various committees of the National Committee for Mental Hygiene, notably as chairman of its Executive Committee, and the Rhode Island Society for Mental Hygiene, Dr. Ruggles is particularly well fitted for the manifold responsibilities the new positions demand. Yale is extremely fortunate in that the generosity of the trustees of Butler Hospital has made it possible for Dr. Ruggles to obtain leave of absence from that institution and devote his entire time to his new duties during the present academic year.

His accession by Yale initiates a program for the study, diagnosis, treatment, and above all, prevention of variations from normal in the mental reactions of individuals, to which program the school of medicine has been committed for some years. Since the reorganization of the school after the World War, psychiatry has been the only subdivision of the four major clinical branches—medicine, surgery, pediatrics, and diseases of women (obstetrics and gynecology)—which it was definitely planned to develop, as soon as funds were available, as an independent section coordinate

with the above-cited four major clinical divisions of the school and hospital.

While Dr. Ruggles' task will be primarily as outlined above he hopes, in addition, to lay the foundation for a system of student and faculty advisorship, whereby students may be brought to a clear understanding of their own tendencies, abilities and limitation, and faculty members to an appreciation of the problems of the men whose minds they are trying to guide.

Such a program, Dr. Ruggles concedes, will inevitably require a much longer period than one year to perfect. He is sanguine, nevertheless, that a step, at least, may be taken in the direction of saving the college faculty waste effort in training men inherently incapable of gaining any benefit from education, and also of saving the students themselves from useless endeavor to achieve ambitions for which they are unfit, although probably eminently equipped for the pursuit of some other objective.

"It simmers down," he says, "to a question of human efficiency, of helping the student to understand himself and then of aiding him to develop those potentialities which will bring him the largest measure of happiness and of usefulness to society."

In announcing the appointment of Dr. Ruggles, President James Rowland Angell of the university declared:

"With this appointment Yale begins the development of a highly important contribution to medical education, to the welfare of the student body and to the hygiene interests of New Haven and neighboring communities."

Although an innovation at Yale, the idea of a mental hygiene department, originally put into practice at Dartmouth, has spread to a number of institutions of higher learning, including Harvard, Princeton, West Point, the University of Minnesota and the University of Vermont. Dr. Ruggles was consultant in mental hygiene at Dartmouth two years ago. The Yale experiment, however, will be on a scale broader than ever before attempted.

Dr. Ruggles rendered conspicuous neuro-psychiatric service during the late war. Prior to the entrance of the United States in the conflict he served for some months as psychiatrist to a British war hospital in Edinburgh. In 1917 he organized, after the United States declared war against Germany, the first neuro-psychiatric unit in the American Expeditionary Force.

For a time he was division psychiatrist to the Second Division; he was then made consultant in psychiatry for the American war hospitals in England, and after the Armistice was medical director of Base Hospital 214 at Savenay, France.

For conspicuous service he was awarded the Croix de Guerre by the French Government.

We congratulate Yale University upon the wisdom of its selection and Dr. Ruggles upon the opportunity for valuable and epoch-making service which is thus afforded him.

MEETING OF THE ASSOCIATION FOR RESEARCH IN NERVOUS AND MENTAL DISEASES.—This Association will hold its meeting for 1925 at the Hotel Commodore, New York, during the last week of December.

Dr. Henry Alsop Riley, 870 Madison Avenue, New York, has sent out the following tentative list of papers to be presented at the meeting:

Historical Survey: Pre-Kraepelinian Conceptions. Kraepelin's Contribution (*dementia præcox*), Later Developments. Dr. Adolf Meyer, Baltimore. Criteria for the Definition and Delimitation of the Schizophrenic Reaction. Dr. C. M. Campbell, Boston. Frequency of Schizophrenia in Relation to Race, Nativity, Age, Sex, and Environment. Dr. Horatio M. Pollock, Albany. Hereditary and Familial Relations of Schizophrenia. Dr. Albert M. Barrett, Ann Arbor. Heredity in Schizophrenia. Dr. Abraham Myerson, Boston. The Outcome of Schizophrenic Reactions Observed in Soldiers During the War. Dr. Thos. W. Salmon, New York. Constitutional Factors in Schizophrenia. Dr. Theophile Raphael, Ann Arbor. Mental and Emotional Components of the Personality in Schizophrenia. Dr. George S. Amsden, Albany. Affective Experience in Early Schizophrenia. Dr. Harry S. Sullivan, Baltimore. Emotional Maladjustment and Possibilities of Readjustment in Schizophrenia (The Influence of Jealousy in Schizophrenia). Dr. Edward J. Kempf, New York. Psychogalvanic and Association Studies in Schizophrenia and Kindred Conditions. Drs. Richter and Syz, Baltimore. Brain Changes in Schizophrenia. Dr. Chas. B. Dunlap, New York. Lipoid Degeneration Products in the Thalamus and Globus Pallidum of Schizophrenia. Dr. Walter Freeman, Washington. Histological Study of the Endocrine Glands in Schizophrenia. Dr. Bertram D. Lewin, New York. Calorimetry of Schizophrenic Blood Vessels. Dr. Nolan D. C. Lewis, Washington. Biology of Sex in Schizophrenia. Dr. Chas. E. Gibbs, New York. Prognosis of Schizophrenia. Dr. Edward A. Strecker, Philadelphia. Course and Outcome of Schizophrenia. Dr. Eleanora B. Saunders, Baltimore. Deterioration in Schizophrenia: Its Occurrence, Characteristics and Nature. Dr. George H. Kirby, New York. Precipitating Causes of Schizophrenia. Dr. R. H.

Hutchings, Utica. Alcoholism and Schizophrenia. Dr. M. S. Gregory, New York. Schizophrenic Reactions in Prisoners. Dr. Herman M. Adler, Chicago. Schizophrenic Reactions and the Psychoneuroses. Dr. A. A. Brill, New York. The Language of Schizophrenia. Dr. Wm. A. White, Washington. Endocrine and Biochemical Studies in Schizophrenia. Dr. Karl M. Bowman, Boston. The Weight of the Heart in Schizophrenia and Other Mental Diseases. Dr. Marjorie Fulstow, Boston. Treatment of Schizophrenia. Dr. H. A. Cotton, Trenton. Schizophrenia and Epidemic Encephalitis, Their Alliances and Differences. Dr. Smith Ely Jelliffe, New York. Gastro-Intestinal Motor Functions in Schizophrenia. Dr. George W. Henry, White Plains. Episodic or Transitory Schizophrenic Reactions. Dr. Sidney I. Schwab, St. Louis.

The final program and date of the meeting, with an announcement of the general arrangements for the meeting, will be sent out by Dr. Riley before December first.

Association and Hospital Notes and News.

THE EIGHTY-SECOND ANNUAL MEETING OF THE AMERICAN PSYCHIATRIC ASSOCIATION.—The next annual meeting of The American Psychiatric Association, the eighty-second, will be held at the Waldorf-Astoria, New York, June 7, 8, 9, 10, 1926.

Those intending to apply for membership are again notified that their names and necessary credentials must be in the hands of the Secretary, Dr. Earl D. Bond, 4401 Market St., W. Philadelphia, Pa., not later than December 1, 1925.

Applications for Fellowship follow the usual rule as these are printed in the proceedings of the meeting at which they are presented and lie over for one year before being brought up for election.

COMMITTEES OF THE AMERICAN PSYCHIATRIC ASSOCIATION FOR 1925-6.—Dr. C. Floyd Haviland, President of the Association, has named the following committees:

Committee on Arrangements.—M. B. Heyman, M.D., Chairman, New York, N. Y.; Isham G. Harris, M.D., Vice-Chairman, Brooklyn, N. Y.; Geo. F. Brester, M.D., New York, N. Y.; A. A. Brill, M.D., New York, N. Y.; Sanger Brown, II, M.D., New York, N. Y.; C. C. Burlingame, M.D., New York, N. Y.; Louis Casamajor, M.D., New York, N. Y.; Menas S. Gregory, M.D., New York, N. Y.; E. E. Hicks, M.D., Brooklyn, N. Y.; Raymond F. C. Kieb, M.D., Beacon, N. Y.; Geo. H. Kirby, M.D., New York, N. Y.; Augustus S. Knight, M.D., New York, N. Y.; Robert B. Lamb, M.D., Harmon-on-Hudson, N. Y.; H. M. Pollock, Ph.D., Albany, N. Y.; M. W. Raynor, M.D., Kings Park, N. Y.; F. W. Robertson, M.D., New York, N. Y.; Wm. L. Russell, M.D., White Plains, N. Y.; W. G. Ryon, M.D., Poughkeepsie, N. Y.; Philip Smith, M.D., New York, N. Y.; Frankwood E. Williams, M.D., New York, N. Y.; Spencer L. Dawes, M.D., New York, N. Y.; Thomas W. Salmon, New York, N. Y.

Committee on Program.—Harry C. Solomon, M.D., Chairman, Boston, Mass.; Earl D. Bond, M.D., Vice-Chairman, Philadelphia, Pa.; Albert M. Barrett, M.D., Ann Arbor, Mich.; A. A. Brill, M.D., New York, N. Y.; Chester Lee Carlisle, M.D., Waukesha, Wis.; Clarence B. Farrar, M.D., Guelph, Ont.; Samuel W. Hamilton, M.D., White Plains, N. Y.; George H. Kirby, M.D., New York, N. Y.; Lawson G. Lowrey, M.D., Cleveland, O.;

George W. T. Mills, M.D.; New York, N. Y.; Edward A. Strecker, M.D., Philadelphia, Pa.; Douglas A. Thom, M.D., Boston, Mass.

Committee on Pathological Investigation.—Louis Casamajor, M.D., Chairman, New York, N. Y.; Hugo Mella, M.D., Vice-Chairman, Denver, Colo.; Albert M. Barrett, M.D., Ann Arbor, Mich.; Myrtelle M. Canavan, M.D., Boston, Mass.; Clarence O. Cheney, M.D., Utica, N. Y.; Clifford B. Farr, M.D., Philadelphia, Pa.; Robert A. Keilty, M.D., Danville, Pa.; George H. Kirby, M.D., New York, N. Y.; Adolf Meyer, M.D., Baltimore, Md.; Samuel T. Orton, M.D., Iowa City, Ia.; Nathan W. Winkleman, M.D., Philadelphia, Pa.; Henry W. Woltmann, M.D., Rochester, Minn.

Committee on Statistics.—James V. May, M.D., Chairman, Boston, Mass.; Albert M. Barrett, M.D., Vice-Chairman, Ann Arbor, Mich.; E. Stanley Abbot, M.D., Boston, Mass.; C. Macfie Campbell, M.D., Boston, Mass.; Owen Copp, M.D., Philadelphia, Pa.; George H. Kirby, M.D., New York, N. Y.; Samuel T. Orton, M.D., Iowa City, Ia.; Thomas W. Salmon, M.D., New York, N. Y.; W. L. Treadway, M.D., Boston, Mass.; Frankwood E. Williams, M.D., New York, N. Y.

Committee on Nursing.—E. H. Cohoon, M.D., Chairman, Harding, Mass.; Ross McC. Chapman, M.D., Vice-Chairman, Towson, Md.; Daniel H. Fuller, M.D., Philadelphia, Pa.; Charles I. Lambert, M.D., White Plains, N. Y.; William W. Richardson, M.D., Mercer, Pa.; Arthur H. Ring, M.D., Arlington Heights, Mass.; Walter G. Ryon, M.D., Poughkeepsie, N. Y.; David F. Weeks, M.D., Skillman, N. J.; C. F. Williams, M.D., Columbia, S. C.

Committee on Occupational Therapy.—William Rush Dunton, Jr., M.D., Chairman, Catonsville, Md.; Henry I. Klopp, M.D., Vice-Chairman, Allentown, Pa.; Louis R. Brown, M.D., Little Rock, Ark.; Earl H. Campbell, M.D., Traverse City, Mich.; James M. Forster, M.D., Whitby, Ont.; A. W. Guest, M.D., Jamestown, N. D.; William C. Garvin, M.D., Binghamton, N. Y.; J. Allen Jackson, M.D., Danville, Pa.; Charles T. La Moure, M.D., Mansfield Depot, Conn.; John B. Macdonald, M.D., Hathorne, Mass.; Clarence P. Oberndorf, M.D., New York, N. Y.; Thomas A. Rutherford, M.D., Clarks Summit, Pa.; Paul G. Taddiken, M.D., Ogdensburg, N. Y.

Committee on Standards and Policies.—William L. Russell, M.D., Chairman, White Plains, N. Y. (for two years); George H. Kirby, M.D., New York, N. Y. (for five years); W. M. English, M.D., Hamilton, Ont. (for four years); Samuel T. Orton, M.D., Iowa City, Ia. (for three years); C. Macfie Campbell, M.D., Boston, Mass. (for one year).

Committee on Ethics.—Owen Copp, M.D., Chairman, Philadelphia, Pa. (for two years); E. N. Brush, M.D., Baltimore, Md. (for five years); George T. Tuttle, M.D., Milton, Mass. (for four years); Isham G. Harris, M.D., Brooklyn, N. Y. (for three years); Alfred T. Hobbs, M.D., Toronto, Ont. (for one year).

Committee on Re-Organization.—George M. Kline, M.D., Chairman, Boston, Mass.; Earl D. Bond, M.D., Philadelphia, Pa.; C. Floyd Haviland, M.D., Albany, N. Y.

Committee on Legal Aspects of Psychiatry.—Karl A. Menninger, M. D., Chairman, Topeka, Kans.; Wm. A. White, M. D., Vice-Chairman, Washington, D. C.; Herman M. Adler, M. D., Chicago, Ill.; Bernard Glueck, M. D., New York, N. Y.; William Healy, M. D., Boston, Mass.; Raymond F. C. Kieb, M. D., Beacon, N. Y.; S. E. Jelliffe, M. D., New York, N. Y.; Lawson G. Lowrey, M. D., Cleveland, O.; Thomas W. Salmon, M. D., New York, N. Y.; Frankwood E. Williams, M. D., New York, N. Y.

The death of Dr. M. B. Heyman, which occurred since the above lists were in type, has necessitated a rearrangement of the Committee on Arrangements. Dr. Isham G. Harris, of the Brooklyn, N. Y., State Hospital, has been appointed chairman and Dr. Mortimer W. Raynor, of the Kings Park State Hospital, Kings Park, N. Y., vice-chairman.

Book Reviews.

Youth in Conflict. By MIRIAM VAN WATERS. (New York: Republic Publishing Company.)

This book consists of two parts, the first presenting the problem of delinquency and the second dealing with adjustment of delinquency.

Crime, whether committed by youthful or mature blunderers, has been largely dealt with on the basis of so-called common sense; that is to say, with a naive directness leading to nonsense in method and mischief in result. The simple formula has been: repression for prophylaxis, punishment for therapy.

Modern triumphs of science in other fields have raised the hope that better success might be secured through the employment here too of scientific method. In the past few years this has indeed resulted in a practical contribution, but not in a complete solution of the problem.

Pending further progress of science, can we deal with delinquency to better purpose? The book before us answers "Yes," and, in concrete detail, tells how.

With a literary skill altogether unusual for a sociologic treatise, the author transports the reader into a juvenile delinquency clinic and by objective demonstration acquaints him with youth in conflict in the home, the school, in industry, and in the community.

The reader is well prepared for the discussion of adjustment which follows and which includes juvenile court procedure, social treatment, correctional education, mental hygiene, etc., and offers a comprehensive community program.

The book, especially on the treatment side, is, in our opinion, by far the best that has yet been written. It should be not only in the hands of every parent, teacher and social worker, but also on everybody's "five-foot" shelf on account of its general cultural value.

One point of superiority about this book is that the entire subject has been treated in it with an unusual freedom from any "scientific" preconceptions. The author deals with facts, situations, problems that arise in connection with juvenile court work, and there does not seem to be a line in the book that is conjectural.

Perhaps the most striking thing about the book is the author's own unconsciousness of the source of her inspiration.

She has evidently given this matter a great deal of thought, as shown particularly in Chapter XI, devoted to a consideration of the question, Who are successful workers with delinquents?

Among the specified requirements we find adequate educational background, preliminary technical training and experience, and "normal" personality.

It has not occurred to her to include among the essential qualifications a special strength of the parental instinct available, upon sublimation, for the pouring out upon every child, native or foreign, white or colored, pretty or ugly, obedient or disobedient—only because it is a child—of all that is needed in compassion, good-will and protection.

The author asks, "What is the explanation of the tranquilizing personality who can put the child at ease, or bring serenity rather than anxiety and irritation?" The answer is not formulated in words. It is in the spirit unconsciously breathed in every page.

It is this, and not merely its scientific validity, which, as we think, intitles the book to a unique position in the literature of delinquency.

AARON J. ROSANOFF.

Practical Clinical Psychiatry for Students and Practitioners. By EDWARD A. STRECKER, A. M., M. D., Professor of Nervous and Mental Diseases, Jefferson Medical College; Medical Director, Pennsylvania Hospital, Department for Mental and Nervous Diseases; and FRANKLIN G. EBAUGH, A. B., M. D., Professor of Psychiatry, University of Colorado; Director, Colorado Psychopathic Hospital; Foreword by CHARLES W. BURR, B. S., M. D., Professor of Mental Diseases, University of Pennsylvania. (Philadelphia: P. Blakiston's Son & Co., 1925.)

A book phenomenally well adapted to the purpose expressed in its title, well-printed, handy sized, with few typographical errors. While a textbook of psychiatry, the preface emphasizes that all medical men "should cultivate that attitude which comes from some knowledge of mental diseases and which might be termed the psychiatric point of view" in order that they may acquire "ability to treat not only the physical symptoms of their patient, but also his whims and peculiarities, his personality, his mind and in fact the whole patient." A moderately careful perusal of this book would greatly enhance the social efficiency of physicians, nurses, and welfare workers, who have not had good training in psychiatry. Case material, the basis of the authors' attack, makes up the greater part of the book. Discussions are brief and lucid. The language is well chosen for so wide an audience. The following critical considerations are extended because of the merit of the book:

In the chapter on General Etiology, there is a schematic device which does not seem any too logical: "Reality," of which the converse, "unreality," is held to be synonymous with mental disease, is used in a way that suggests a foggy conception. The discussion of heredity is excellent: "Many psychiatrists are beginning to resent the undue emphasis which has been placed on heredity . . . and the comparative belittlement of other factors . . . particularly the environmental influences of childhood. . . ."

Classification begins with a general division into organic, toxic, and functional (psychogenic) psychoses. The classification of the National Committee for Mental Hygiene is used, thereafter. In this, we find the con-

venient but unsafe division of "thought process," "motor activity," and "emotional life," used to elucidate "dementia præcox." Psychasthenic states are made to include anxiety neuroses, but this error is corrected in the chapter on the psychoneuroses. There are several such minor deviations in formal presentation which do not assist the student; *e. g.*, the attitude towards "interpretive psychiatry," and the poor correlation between an excellent discussion of Insight and the use of the word in case reports throughout the book.

There is a thorough chapter on Method of Examination. It omits, as usual, any emphasis on *what the patient has to say* about the history of his illness. Again as usual, there seems to be no thought as to the *effect on the patient* of the examination procedures.

In the chapter on Organic Psychoses, the authors' optimism as to the prevention of general paresis, and as to the therapeutic value of tryparsamid (no mention of the ill effects of which is included) may lead the inexperienced to disappointment. One might spend a little more space on the "apoplectiform and epileptoid convulsions" in this malady, which may cause the young physician some embarrassment.

In the treatment of toxic psychoses, in spite of the statistical support of the prohibition law, there is ample space devoted to valuable case presentations of alcoholic illnesses. There are a few erroneously precise statements in this section; *e. g.*, "Chronic alcoholism extending over a period of years along with a paranoid constitutional makeup accounted for the psychosis," and, in another case, "Family history was of no consequence. She had always been unstable and there was a history of difficulties in adjustment." Neither of these statements is consistent with the authors' enlightened attitude towards etiology. They are of the olden days when "Insight was good" if "She blamed her condition entirely on the morphine she had been taking."

Just before reaching the section on Manic-Depressive Psychosis, we read: "In general, the practice of placing patients in the more benign group of psychoses, thereby indicating active treatment procedure is the best to follow." How such a statement survives in a text-book in which the attitude towards schizophrenia reaches a new level of rationality is beyond the reviewer. The illusion of confluence to which it pins its faith is quite as prone to work backwards as forwards. Furthermore, we trust that no reader of this book intends to permit those diagnosed as "dementia præcox" to vegetate. The chapter on the last mentioned group of patients is one of the finest in the literature. It stresses preventive and therapeutic procedures in the excellent case presentations, not hesitating to show that some patients on whom the prognosis was unfavorable, none the less, patched up an adjustment.

"Manic-depressive offers inviting material for research, since the mechanism of the disease is closely related to the emotions and their oscillations, which if not yet measurable are at least known and understandable phenomena." What does this mean? Such loose use of language is uncommon in the book. In discussing this psychosis, there is reference to neologistic

formations. The neologism of the schizophrenic is the product of complex symbol dynamics, the like of which could scarcely find place in the half-comical and related elisions of the manic. One might wish for more data as to method where it is said that "careful attention . . . might have procured an endocrine adjustment" of one of the patients, but this neglect is more than balanced by the fine writing against modified eviscerations: "Removal of foci of infection when they *actually* exist is an excellent procedure, but radical surgery with insufficient diagnostic criteria is to be deplored." The discussion of stupor is reserved in tone; it is thoroughly sound. The Involucional and Pre-Senile Psychoses are the subject of an excellent chapter.

As stated, "Dementia Præcox" heads one of the very best chapters of the book. It is not helped by the statement that "a dissociation of affect (emotional tone) leading to withdrawal from contact with reality" is a part of the "essential diagnostic constellation." It seems, too, as if the usage of the expression "incoherent and irrelevant talk" is detrimental to the advanced and enlightened views recorded in this chapter. The amount of irrelevance and incoherence which a physician observes in the productions of a schizophrenic seems to provide an excellent inverse measure of his grasp of the patient's psychological situation. While the authors have produced the best text-book section on schizophrenia that has come to the attention of the reviewer, he wonders what is meant by "The need for further research along preventive lines, such as studies in childhood psycho-pathology and general internal medicine. . . ." But even if it does seem well to discover, if possible, in what schizophrenia actually consists before we engage in research along preventive lines, we can agree most emphatically that "*Early examination [and treatment] of this group may frequently prevent . . . an unfavorable and fatal outcome.*"

The chapter on Paranoia and Paranoid Conditions is good but does not stress those paranoid states which occur in the involucional period, or somewhat earlier, which are not easily related to schizophrenia and do hold out very fair promise of social readjustment. The student's faith in psychiatric method might be weakened by the naive statement on page 274: "The patient's reaction when asked if she heard voices was a perfectly normal one"—this of a paranoid who had been twice previously in a psychiatric hospital. The "interpretive psychiatry" on the same case is not sufficiently correlated with the recorded clinical data. A student is not helped by a stumbling statement that "her ambition and desire to learn a profession probably without any real ability, possibly many mental conflicts about sexual problems, led to projections [first use of this word, only other reference is in Glossary] in the form of systematized delusions of persecution." This is a poor preliminary for the paragraph on page 282: "Attention should be called to the relationship between homosexual trends and paranoid states, especially in paranoia. . . ." As the case material is not developed in such a manner as to support these views, they might easily be taken as evidence of psychiatric credulity, and as further argument against "interpretive psychiatry."

We come next to the Psychoneuroses and Neuroses. About two pages are devoted to remarks on Freud's view of hysteria. Ross is credited with the widespread common-sense view that "all neuroses represent faulty responses to the difficulties which life offers." If someone must receive credit for that view, why not Prof. Adolf Meyer? The section of this chapter devoted to treatment is excellent. One may wonder at a sectional heading, "Freudian Psychoanalytic Catharsis." It is probably fortunate that this exposition of psychoanalytic technique is complicated—it is unfortunate that so much "simple" instruction is available for the amateur, elsewhere. "Quite often, very simple forms of psychotherapy meet the requirements of the situation and it may be dangerous to go further. No criticism of able and careful psychoanalysts is intended, for they themselves recognize the need for caution."

One of the difficulties of brief case presentation appears in the exposition of Neurasthenia. The student may well wonder why the patient did not progress into a schizophrenia; if he is at all experienced, he will know that it was not because of the previous "treatment" by a chiropractor and five physicians. The two cases under Hysteria are of psychotic magnitude, the authors assuming that the student has had ample experience with milder grades in the course of dispensary work. Under Psychasthenia, a case is quoted from Ross, and another is presented incompletely. No mention is made of the severe obsessional states which may be a prelude of fairly long duration to paranoid schizophrenic illness. The one case of Anxiety Neurosis is gleaned from the military service.

Chapter XI deals with "Constitutional Psychopathic Inferiority." As this title suggests, the authors here desert the childhood environment factors in favor of congenital causation. This chapter is by all odds the least satisfactory in the book. Three cases are mentioned. In each one, there is evidence of bad home surroundings. In one of the patients, who had adjusted well in the military service, there is misconstruction of the important features of that environment so that a course of strict discipline is given precedence in therapeutic measures. The whole intelligent structure of psycho-therapy seems to be in abeyance when the authors consider the psychopath. We learn that such people suffer a "kind of feeble-mindedness which involves all spheres save the intellectual one; that the inferior is like the low grade defective in that he fails to profit by experience." It is a fact that in each and every form of mental disorder, the patient, while ill, shows more or less circumscribed inability to "profit by experience." When one overcomes his own pessimism and studies the psychopathic personality in a strictly scientific, non-judicial manner, he finds the self-same dynamic situations, and the self-same antecedent "causal" connections to these situations, as is the case in other mental difficulties. He finds, instead of a spectacular illness, a diffuse maladaptation, so to speak. It seems to be a matter of childhood psychosis in the psychopathic individual, and of juvenile, adolescent, or later illness in others. The reviewer has not found any *fact* that negated therapeutic possibilities in these cases; they are not attractive patients for such work, however. Neither are epileptics,

hypomanics, and so forth. We hope that our authors may return to the fold in a later edition, when we will perhaps find this chapter heading in the form of "Psychopathic Personality."

The last chapter deals with Mental Deficiency. It is brief but good. A valuable point is made in the differentiation of mental retardation from true defect.

The book ends with a Glossary and a very fair Index. Some terms are included, in the former, which have not appeared in the text: Some few of the definitions are not as helpful as might be.

In closing, we must remark on the excellent presentation of follow-up work throughout the book. Psychiatric after-care is in need of extensive development. This book not only stresses the need, but, in the case reports, gives more than a few suggestions which should stimulate those who are interested in this valuable and important branch of psychiatric rehabilitation and prevention.

HARRY STACK SULLIVAN,
The Sheppard and Enoch Pratt Hospital.

In Memoriam.

WALTER E. FERNALD, M. D.

By the death of Dr. Walter E. Fernald at his home on November 26, 1924, this Association has lost a distinguished member.

Dr. Fernald was born at Kittery, Maine, in 1859. He received his preliminary education at New Hampton, New Hampshire, taught in a country school and graduated in medicine at Bowdoin Medical School in 1881. From 1882 to 1887 he served as assistant physician in the Mendota State Hospital, Wisconsin. In 1887 he was appointed superintendent of the Massachusetts School for the Feeble-Minded, which position he occupied until his death.

While the special branch of psychiatry which dealt with feeble-mindedness engaged the major portion of his activities, yet there was no part of the general field of psychiatry which did not command his interest and to which he did not widely contribute.

In his advocacy of the psychiatric examination of all retarded and peculiar school children, he forcibly called the attention of the world to the vital point at which to break up the oncoming wave of mental and allied diseases.

In the Waverley researches of the pathology of the feeble-minded, in which he collaborated with Southard, was wrought a most complete and noteworthy contribution in this field.

He directed legal thought to the association of mental disease and mental defect with delinquency and crime, always to the end that there might be a more thorough understanding of the individual by society and that he might, thereby, receive more intelligent care and treatment.

Dr. Fernald not only taught the subject of mental defect in a telling manner for many years to organized classes of students at Harvard and Tufts Medical Schools, Harvard Summer School of Education, the School for Social Workers at Smith College and in his own nationally-known clinic at Waverley, but during his entire professional life he carried on a campaign of enlight-

enment to the public on the subject of feeble-mindedness by lecturing to social agencies, associations meeting in convention, medical societies, educational societies and at all times and in all places wherever he could forward the cause for the better understanding of and care for the feeble-minded.

The institution of his creation at Waverley was so well organized medically, psychologically, educationally and clinically, and was so richly endowed with his personal genius, and the organization was so inspired by his devotion to duty in the care of the feeble-minded, it is little wonder that this institution for years has been the mecca to which travelers from all parts of the world have gathered in search of knowledge pertaining to the feeble-minded. His remarkably keen insight into the complexity of social conditions with his sound judgment and boundless human sympathy combined to make him an advisor and counselor on all questions pertaining to social betterment. Particularly happy was he in this respect in the capacity of advisor to legislative bodies and it is due largely to his success in this field, that his own state, Massachusetts, has placed on her statutes the following laws pertaining to the feeble-minded:

The law requiring the census and registration of the feeble-minded in the state.

The law establishing psychiatric clinics for the examination of retarded school children in the public schools.

The law permitting the parole of the feeble-minded from the state schools.

The law legally recognizing the defective delinquents and making separate institutional provision for them.

The law requiring that an inquiry shall be made into the mental status of prisoners.

While it is to be regretted that Dr. Fernald did not leave a book of his writings as a textbook on the subject of feeble-mindedness, yet so potent are his writings in pamphlet form that they occupy a high place in the clinical guidance of all those who are interested in the problem of mental defect.

The American Association for the Study of the Feeble-Minded honored itself twice by making him its President, the last time in 1924. His address at this time, "Thirty Years' Progress in

the Care of the Feeble-Minded," is a masterpiece in completeness and could well be accepted as a classic on the subject of mental deficiency. With his characteristic modesty he made no allusion to himself in this address but so striking has been his influence on the work for the feeble-minded in America, this address might very appropriately be re-titled "The Autobiography of Dr. Walter E. Fernald in the Field of Mental Deficiency."

GEORGE L. WALLACE.

RICHARD F. GUNDRY, M. D.

Dr. Richard Fitz-Harris Gundry, founder of the Richard Gundry Home (Harlem Lodge), Catonsville, Maryland, died August 5, 1924. Dr. Gundry, the son of the late Dr. Richard and Mrs. Mary Martha Fitz-Harris Gundry, was born in Dayton, Ohio, April 21, 1866. Dr. Gundry's father came to Catonsville as Superintendent of the Spring Grove State Hospital in 1878, where Dr. Richard F. Gundry was raised. He was educated in the public and private schools of Baltimore, graduating in medicine in 1888 from the College of Physicians and Surgeons. Soon after his graduation he became Assistant Physician at the Dayton, Ohio, State Hospital, where he served several years, transferring later to the Athens Hospital, where he remained until 1891, when his father died. He then returned to Catonsville, and, associated with his mother, established the Richard Gundry Home, which institution he conducted until his death.

Dr. Gundry was widely known in the medical profession, being a member of the American Medical Association, American Psychiatric Association, Southern Medical Association, the Medical and Chirurgical Faculty of Maryland, the Baltimore County Medical Association, of which he was a former President, the Maryland Psychiatric Society, and the Baltimore Rotary Club. He was also a member of the Board of Managers of Spring Grove State Hospital, and at the time of his death had served twelve years on that Board.

He is survived by his widow, Katherine Hines Gundry, one daughter, Miss Katherine Gundry; and two sons, Richard and Jesse Hines Gundry. Also by four sisters, Miss Edith E. Gundry, of Washington; Miss Mattie Gundry, of Falls Church, Virginia;

Mrs. William E. Phillips, of Laurel, Maryland ; and Mrs. Henry J. Nichols, of Washington, D. C. ; and two brothers, Dr. Alfred T. and William P. Gundry, of Catonsville.

Dr. Gundry was buried from his home at Harlem Lodge, Catonsville, the interment being made at Loudon Park Cemetery, Baltimore, and the services being conducted by the Rev. Thomas Yardley, Rector of St. Timothy's Church, Catonsville, of which Dr. Gundry was a member.

Appointments, Resignations, Etc.

- ADAMS, DR. EARL H., Assistant Physician at St. Lawrence State Hospital at Ogdensburg, N. Y., appointed Medical Internes at Utica State Hospital at Utica, N. Y., June 16, 1925.
- ALLEN, DR. FREDERICK H., Resident Psychiatrist at Henry Phipps Psychiatric Clinic at Baltimore, Md., appointed Director of Child Guidance Clinic No. 1 of the National Committee for Mental Hygiene which is conducting a demonstration in Philadelphia, Pa.
- AMSDEN, DR. GEORGE S., temporarily in charge of the Marshall Sanitarium at Troy, N. Y.
- BECTON, DR. JAMES A., in charge of City View Sanatorium at Nashville, Tenn., has resigned to open a psychopathic hospital at Birmingham, Ala.
- BARNETT, DR. CONSTANTINE C., appointed Superintendent of the new state hospital for colored insane at Maggie, W. Va.
- BELL, DR. JOHN H., appointed Superintendent of Virginia State Epileptic Colony at Madison Heights.
- BENNETT, DR. ALICE, formerly of State Hospital at Norristown, Pa., and for fifteen years on the staff of the New York Infirmary for Women and Children, died May 31, 1925, of angina pectoris, aged 74.
- BERG, DR. LOUIS, appointed Medical Internes at Manhattan State Hospital at Wards Island, N. Y., April 1, 1925.
- BERLINER, DR. KURT, Assistant Physician at Kings Park State Hospital at Kings Park, N. Y., resigned June 30, 1925.
- BLACK, DR. PHYLLIS V., appointed Medical Internes at Buffalo State Hospital at Buffalo, N. Y., May 15, 1925.
- BLOOM, DR. HENRY R., appointed Medical Internes at Middletown State Homeopathic Hospital at Middletown, N. Y., June 24, 1925.
- BOLTON, DR. HARRIS A., appointed Superintendent of State Hospital for the Insane at Helena, Mont.
- BOYLE, DR. ERNEST, appointed Medical Internes at Manhattan State Hospital at Wards Island, N. Y., April 1, 1925, and resigned June 30, 1925.
- BRYAN, DR. WILLIAM J., formerly of the Fulton State Hospital at Fulton, Mo., appointed Superintendent of the State Tuberculosis Sanatorium at Mount Vernon, Mo.
- BURTON, DR. JAMES W., appointed Superintendent of State Hospital No. 5 at Nevada, Mo.
- CARROLL, DR. ELIZABETH DELIA DIXON, appointed Trustee of the State Home and Industrial School for Women and Girls at Samarcand, N. C.
- CHANDLER, DR. JENNIE S., appointed Assistant Physician at Utica State Hospital at Utica, N. Y., April 1, 1925.
- CLARE, DR. HARVEY, Superintendent of Provincial Hospital at Toronto, Ontario, appointed Superintendent of Homewood Sanitarium at Guelph, Ontario.
- COLBERT, DR. CARTER N., appointed Assistant Physician at Brooklyn State Hospital at Brooklyn, N. Y., June 1, 1925.
- CORSON, DR. HAROLD, appointed Internes at Sheppard and Enoch Pratt Hospital at Towson, Md., July 8, 1925.
- CRIMMINS, DR. FLORENCE M., appointed Medical Internes at Utica State Hospital at Utica, N. Y., June 16, 1925.
- CURRENT, DR. HOWARD W., appointed Medical Internes at St. Lawrence State Hospital at Ogdensburg, N. Y., June 15, 1925.
- CURTIS, DR. N. F., Medical Internes at Central Islip State Hospital at Central Islip, N. Y., resigned May 12, 1925.

- DENNES, DR. BLANCHE, Senior Assistant Physician at Hudson River State Hospital at Poughkeepsie, N. Y., granted leave of absence June 1, 1925.
- DIXON, DR. WILLIAM H., Trustee of North Carolina State Training School for Feeble-Minded at Kinston, appointed Superintendent.
- DREWRY, DR. WILLIAM F., City Manager of Petersburg, Va., has been appointed to the State Board of Public Welfare for four years.
- ECKERDT, DR. ALONZO B., commissioned Superintendent of Territorial Hospital at Oahu, Honolulu, July 1, 1925.
- ELKIND, DR. HENRY B., was appointed early in the year Medical Director of the Massachusetts Society for Mental Hygiene to succeed Dr. Pratt, who was called to a position with the National Committee in New York.
- ELLIOTT, DR. GEORGE A., Interne at Sheppard and Enoch Pratt Hospital at Towson, Md., appointed Interne at Boston Psychopathic Hospital at Boston, Mass., July 1, 1925.
- ELLIOTT, DR. WILLIAM M., appointed Superintendent of Central State Hospital at Lakeland, Ky.
- FARRAR, DR. CLARENCE B., Superintendent of Homewood Sanitarium at Guelph, Ontario, appointed Medical Director of Toronto Psychiatric Clinic at Toronto, Ontario.
- FERLAND, DR. LOUIS V., appointed Medical Interne at Kings Park State Hospital at Kings Park, N. Y., June 16, 1925.
- FOSTER, DR. PAUL W., appointed head of City View Sanitarium at Nashville, Tenn.
- GIBBS, DR. CHARLES E., Associate in Internal Medicine and Clinical Pathology at the New York Psychiatric Institute, transferred to Rochester State Hospital at Rochester, N. Y., as Senior Assistant Physician, July 1, 1925.
- GOLDMAN, DR. LOTHAR, Medical Interne at St. Lawrence State Hospital at Ogdensburg, N. Y., resigned June 22, 1925.
- GREENE, DR. RANSOM A., Superintendent of Taunton State Hospital at Taunton, Mass., appointed Superintendent of Walter E. Fernald State School at Waverly, Mass.
- GROVER, DR. MILTON M., Senior Assistant Physician at Kings Park State Hospital at Kings Park, N. Y., resigned June 30, 1925, and appointed First Assistant Physician at Harlem Valley State Hospital at Wingdale, N. Y., July 1, 1925.
- GWIM, DR. ALVA, granted a fellowship for training in extramural psychiatry by the National Committee for Mental Hygiene.
- HART, DR. JOHN E., appointed Trustee of State Hospital for the Colored Insane at Goldsboro, N. C.
- HEROLD, DR. ROSS E., Medical Interne at Willard State Hospital at Willard, N. Y., promoted to Assistant Physician April 15, 1925.
- HILL, DR. JULIA F., Assistant Physician at The Retreat, Des Moines, Iowa, elected Secretary-Treasurer of the Iowa Occupational Therapy Association.
- HOCTOR, DR. EMMETT F., Superintendent of State Hospital No. 5 at Nevada, Mo., transferred to State Hospital No. 4 at Farmington, Mo.
- HUNTINGTON, DR. PATRICK H., appointed Assistant Physician at Hudson River State Hospital at Poughkeepsie, N. Y., May 30, 1925.
- JACOBY, DR. ARNOLD L., appointed Director of the new psychopathic clinic at Harper Hospital, Detroit, Mich.
- JAMES, DR. ELMER A., Medical Interne at St. Lawrence State Hospital at Ogdensburg, N. Y., resigned May 7, 1925.
- JEFFSON, DR. JOHN R., appointed Medical Director of the Ashland State Hospital at Fountain Springs, Pa.
- JILLSON, DR. WALTER A., Superintendent of Central State Hospital at Lakeland, Ky., resigned.
- KIEB, DR. RAYMOND F. C., Superintendent of Matteawan State Hospital at Beacon, N. Y., was a delegate to the International Prison Conference, held in London, August 3-10, 1925.
- KNOWLES, DR. HENRY B., appointed Assistant Managing Officer at Dixon State Hospital at Dixon, Ill.
- KREINER, DR. JOHN H., Medical Interne at Brooklyn State Hospital at Brooklyn, N. Y., resigned May 31, 1925.
- KUHLMANN, DR. HELENE J. C., Senior Assistant Physician at Buffalo State Hospital at Buffalo, N. Y., retired after thirty-two years' service April 30, 1925.

- LANDSBOROUGH, DR. ARNOLD MUIR, appointed Medical Interne at Willard State Hospital at Willard, N. Y., July 1, 1925.
- LANG, DR. H. BECKETT, Medical Interne at Willard State Hospital at Willard N. Y., promoted to Assistant Physician April 10, 1925.
- LAUZON, DR. ALBERT L., Medical Interne at Binghamton State Hospital at Binghamton, N. Y., resigned June 30, 1925.
- LEON, DR. HARRY G., Assistant Physician at Dixon State Hospital at Dixon, Ill., resigned to enter private practice in Chicago.
- LIVINGSTON, DR. STANTON K., appointed Medical Interne at Middletown State Homeopathic Hospital at Middletown, N. Y., June 29, 1925.
- LLOYD, DR. JAMES HENDRIE, Visiting Chief in Neurology at Philadelphia General Hospital at Philadelphia, Pa., resigned.
- MCCLOUD, DR. JOHN JAY, of the Orient Branch of the Institution for Feeble-minded of Ohio, died June 29, 1925, of neuritis.
- MCKNAIRY, DR. CHARLES B., Superintendent of North Carolina State Training School for Feeble-Minded at Kinston, resigned.
- MCNEELY, DR. WILLIAM M., Medical Interne at Binghamton State Hospital at Binghamton, N. Y., resigned May 16, 1925.
- MACON, DR. GIDEON H., appointed Trustee of Training School for Feeble-Minded at Kinston, N. C.
- MAYER, DR. FREDERICK, Medical Interne at Kings Park State Hospital at Kings Park, N. Y., promoted to Assistant Physician April 7, 1925.
- MICHAELS, DR. ABRAHAM, appointed Medical Interne at Middletown State Homeopathic Hospital at Middletown, N. Y., June 8, 1925.
- MONTGOMERY, DR. J. M., Medical Interne at Utica State Hospital at Utica, N. Y., resigned June 15, 1925, to accept an appointment in the State Hospital Department of the Province of Ontario.
- MURPHY, DR. BRADFORD J., granted a fellowship for training in extramural psychiatry by the National Committee for Mental Hygiene.
- MURRAY, DR. FRANCIS, appointed Medical Interne at Central Islip State Hospital at Central Islip, N. Y., May 1, 1925.
- NATH, DR. MORRIS, appointed Assistant Physician at Middletown State Homeopathic Hospital at Middletown, N. Y., June 1, 1925.
- NEWBOLD, DR. WILLIAM A., Psychiatrist at North Carolina State Training School for Feeble-Minded at Kinston, resigned.
- NICKERSON, DR. MARY ABBIE, Assistant Physician at Rochester State Hospital at Rochester, N. Y., died July 7, 1925, aged 42.
- PARKER, DR. JAMES H., Superintendent of State Hospital No. 4 at Farmington, Mo., transferred to State Hospital No. 2 at St. Joseph, Mo.
- PATTERSON, DR. CHRISTOPHER J., for sixteen years in charge of the Marshall Sanitarium at Troy, N. Y., has tendered his resignation.
- PUGH, DR. WALTER S., Medical Interne at Utica State Hospital at Utica, N. Y., resigned June 15, 1925, to enter private practice in Utica.
- RICHARDSON, DR. HERBERT A., Medical Interne at Hudson River State Hospital at Poughkeepsie, N. Y., granted leave of absence May 1, 1925.
- RICHTER, DR. CURT P., of the Henry Phipps Psychiatric Clinic at Baltimore, Md., has returned from a trip to Central America where he studied tropical animal life.
- ROSENBERG, DR. GEORGE, appointed Medical Interne at Binghamton State Hospital at Binghamton, N. Y., June 26, 1925.
- ROSS, DR. JOHN W., Medical Interne at Hudson River State Hospital at Poughkeepsie, N. Y., promoted to Assistant Physician April 1, 1925.
- SCHIFFMAN, DR. E. ALLEN, appointed Assistant Physician at St. Lawrence State Hospital at Ogdensburg, N. Y., April 28, 1925.
- SMITH, DR. THOMAS C., Medical Interne at Utica State Hospital at Utica, N. Y., resigned June 30, 1925, to accept a position at Dayton State Hospital at Dayton, Ohio.
- SNEIERSON, DR. HYMAN, Assistant Physician at Binghamton State Hospital at Binghamton, N. Y., resigned June 30, 1925.

- SPEARE, DR. GEORGE S., appointed Medical Intern at Kings Park State Hospital at Kings Park, N. Y., June 20, 1925.
- SPENCER, DR. ROBERT D., for several years Pathologist at Ashland State Hospital at Fountain Springs, Pa., resigned October 1, 1925.
- STRECKER, DR. EDWARD A., Medical Director, Women's Department, Pennsylvania Hospital at Philadelphia, Pa., appointed Visiting Chief in Neurology at Philadelphia General Hospital at Philadelphia, Pa. He was also appointed Professor of Nervous and Mental Diseases at Jefferson Medical College, in place of Dr. Francis X. Dercum, resigned.
- THOMAS, DR. HENRY M., Clinical Professor of Neurology at Johns Hopkins University, died June 21, 1925, of heart disease, aged 64.
- TRUEMAN, DR. NELSON GORE, formerly on the staff of the Danvers State Hospital at Hathorne, Mass., was drowned August 10, 1925, aged 46.
- TURNER, DR. R. GLEASON, appointed Medical Intern at Binghamton State Hospital at Binghamton, N. Y., June 9, 1925.
- WALKER, DR. IRVING L., Senior Assistant Physician at Rochester State Hospital at Rochester, N. Y., retired June 1, 1925, after twenty-five years' service.
- WARFICK, DR. MATTHEW, appointed Medical Intern at Middletown State Homeopathic Hospital at Middletown, N. Y., June 8, 1925.
- WEINAUER, DR. HERBERT F., appointed Medical Intern at Binghamton State Hospital at Binghamton, N. Y., May 11, 1925.
- WERTHEIMER, DR. FREDERICK IGNACE, promoted to Resident Psychiatrist at Henry Phipps Psychiatric Clinic, Johns Hopkins Hospital, Baltimore, Md.
- WHEELER, DR. JOHN ALFRED, Medical Director of Lincoln State School and Colony for Feeble-Minded at Lincoln, Nebr., died April 3, 1925, of coronary thrombosis, following broncho-pneumonia, aged 53.
- WHITE, DR. WILLIAM A., Superintendent of St. Elizabeth's Hospital at Washington D. C., addressed the graduating class of the Long Island College Hospital, May 28, 1925.
- WHITMIRE, DR. CLARENCE L., Assistant Managing Officer at Jacksonville State Hospital at Jacksonville, Ill., resigned to accept a position with U. S. Veterans' Bureau Hospital No. 62 at Augusta, Ga.
- WILLIAMS, DR. PORTER E., Superintendent of State Hospital No. 2 at St. Joseph, Mo., resigned.
- WOOLLEY, HELEN P., Psychologist of the Merrill-Palmer School at Detroit, Mich., appointed Director of the Institute of Child Welfare Research, and Professor of Education at Teachers College, Columbia University, New York.
- WORK, DR. HUBERT, former President of The American Psychiatric Association, delivered the commencement address at the University of Colorado June 15, 1925, and was given the degree of Doctor of Laws. He was also elected President of the Medical Veterans of the World War at their annual session, held at Atlantic City, May 28, 1925.
- WORTHING, DR. HARRY J., First Assistant Physician at Harlem Valley State Hospital at Wingdale, transferred to St. Lawrence State Hospital at Ogdensburg, N. Y., July 1, 1925, as Director of Clinical Psychiatry.
- WRIGHT, DR. HAROLD W., appointed Field Psychiatrist of the Bureau of Mental Health of the Pennsylvania Department of Welfare, September 1, 1925.
- ZIEGLER, DR. LLOYD H., formerly Assistant Physician at Henry Phipps Psychiatric Clinic at Baltimore, Md., appointed Resident Psychiatrist at Colorado Psychopathic Hospital at Denver, September 1, 1925.